

1 Introduction

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3 **(This introduction was written for a British 1940 reprint of DE RE MILITARI. Author**
4 **unknown.)**

5 The most influential military treatise in the western world from Roman times to the 19th Century
6 was Vegetius' DE RE MILITARI. Its impressions on our own traditions of discipline and organization
7 are everywhere evident.

8 The Austrian Field Marshal, Prince de Ligne, as late as 1770, called it a golden book and wrote: "A
9 God, said Vegetius, inspired the legion, but for myself, I find that a God inspired Vegetius." Richard
10 Coeur de Lion carried DE RE MILITARI everywhere with him in his campaigns, as did his father,
11 Henry II of England. Around 1000 A. D. Vegetius was the favorite author of Foulques the Black, the
12 able and ferocious Count of Anjou. Numerous manuscript copies of Vegetius circulated in the time
13 of Charlemagne and one of them was considered a necessity of life by his commanders. A
14 manuscript Vegetius was listed in the will of Count Everard de Frejus, about 837 A. D., in the time
15 of Ludwig the Just.

16 In his Memoirs, Montecuculli, the conqueror of the Turks at St. Gotthard, wrote: "However, there
17 are spirits bold enough to believe themselves great captains as soon as they know how to handle a
18 horse, carry a lance at charge in a tournament, or as soon as they have read the precepts of
19 Vegetius." Such was the reputation of Vegetius for a thousand years.

20 Manuscript copies dating from the 10th to the 15th centuries are extant to the number of 150. DE
21 RE MILITARI was translated into English, French, and Bulgarian before the invention of printing.
22 The first printed edition was made in Utrecht in 1473. It was followed in quick succession by
23 editions in Cologne, Paris and Rome. It was first published in English by Caxton, from an English
24 manuscript copy, in 1489.

25 Flavius Vegetius Renatus was a Roman of high rank. In some manuscripts he is given the title of
26 count. Raphael of Volterra calls him a Count of Constantinople. Little is known of his life. It is
27 apparent from his book that he had not had extensive practical experience as a soldier.. He states
28 quite frankly that his purpose was to collect and synthesize from ancient manuscripts and
29 regulations the military customs and wisdom that made ancient Rome great. According to his
30 statement, his principal sources were Cato the Elder, Cornelius Celsus, Paternus, Frontinus, and the
31 regulations and ordinances of Augustus, Trajan and Hadrian.

32 The Emperor Valentinian, to whom the book is dedicated, is believed to be the second emperor of
33 that name. He evidently was not Valentinian I since his successor, Gratian, is named in the book.
34 Between the reign of Valentinian II and Valentinian III, Rome was taken and burned by Alaric, King
35 of the Goths, an event that unquestionably would have been mentioned had it occurred before the
36 book was written. Vegetius mentions the defeat of the Roman armies by the Goths, but probably
37 refers to the battle of Adrianople where Valens, the colleague of Valentinian I, was killed.

38 It is a paradox that DE RE MILITARI, which was to become a military bible for innumerable
39 generations of European soldiers, was little used by the Romans for whom it was written. The
40 decay of the Roman armies had progressed too far to be arrested by Vegetius' pleas for a return to
41 the virtues of discipline and courage of the ancients. At the same time Vegetius' hope for a revival
42 of the ancient organization of the legion was impracticable. Cavalry had adopted the armor of the
43 foot soldier and was just commencing to become the principal arm of the military forces. The heavy
44 armed foot-soldier, formerly the backbone of the legion, was falling a victim of his own weight and
45 immobility, and the light-armed infantry, unable to resist the shock of cavalry, was turning more
46 and more to missile weapons. By one of the strange mutations of history, when later the cross-bow
47 and gun-powder deprived cavalry of its shock-power, the tactics of Vegetius again became ideal for
48 armies, as they had been in the times from which he drew his inspiration.

49 Vegetius unceasingly emphasized the importance of constant drill and severe discipline and this
50 aspect of his work was very tiresome to the soldiers of the middle ages, the feudal system lending
51 itself but poorly to discipline. "Victory in war," he states in his opening sentence, "does not depend
52 entirely upon numbers or mere courage; only skill and discipline will insure it." His first book is

53 devoted to the selection, training and discipline of recruits. He insists upon the utmost
54 meticulousness in drill. "No part of drill is more essential in action than for soldiers to keep their
55 ranks with the greatest exactness." His description of the many arms which the Roman soldier was
56 required to become expert in reminds one of the almost innumerable duties of the present day
57 infantryman. Recruits were to be hardened so as to be able to march twenty miles in half a
58 summer's day at ordinary step and twenty-four miles at quick step. It was the ancient regulation
59 that practice marches of this distance must be made three times a month.

60 The second book deals with the organization and officers of the legion, the ancient system of
61 promotion, and how to form the legion for battle. We find the Romans provided for soldier's
62 deposits, just as is done in the American army today; that guard and duty rosters were kept in
63 those days as now; and that the Roman system of guard duty is only slightly different from our
64 manual for interior guard duty. The field music is described and is an ornamental progenitor of that
65 in use in United States. The legion owed its success, according to Vegetius, to its arms and its
66 machines, as well as to the bravery of its soldiers. The legion had fifty-five ballista for throwing
67 darts and ten onagri, drawn by oxen, for throwing stones. Every legion carried its ponton
68 equipment, "small boats hollowed out of a single piece of timber, with long cables or chains to
69 fasten them together." And in addition were "whatever is necessary for every kind of service, that
70 the encampments may have all the strength and conveniences of a fortified city." Trains of
71 workmen were provided to perform all the duties now performed by the various services in armies.

72 The third book deals with tactics and strategy and it was this portion of Vegetius that influenced
73 war in the Middle Ages so greatly. He explains the use of reserves, attributing this invention to the
74 Spartans, from whom the Romans adopted it. "It is much better to have several bodies of reserves
75 than to extend your front too much" - an injunction as good today as when it was written.
76 Encircling pursuit is described. The terrain is not overlooked. "The nature of the ground is often of
77 more consequence than courage." The enemy should be estimated carefully. "It is essential to
78 know the character of the enemy and of their principal officers-whether they be rash or cautious,
79 enterprising or timid, whether they fight from careful calculation or from chance."

80 Vegetius' work is filled with maxims that have become a part of our everyday life. "He, therefore,
81 who aspires to peace should prepare for war." "The ancients preferred discipline to numbers." "In
82 the midst of peace, war is looked upon as an object too distant to merit consideration." "Few men
83 are born brave; many become so through training and force of discipline."

84 Vegetius was a reformer who attempted to restore the degenerate Romans of the 4th Century to
85 the military virtues of the ancients, whom he never ceases to laud. His little book was made short
86 and easy to read, so as not to frighten, by a too arduous text, the readers whom he hoped to
87 convince. He constantly gives the example of the "Ancients" to his contemporaries. The result is a
88 sort of perfume of actuality, which had much to do with his success. It still is interesting reading
89 and still is the subject of modern commentaries. No less than forty have appeared in Germany in
90 the 19th and 20th centuries. *Revue Militaire Generale* (France) and our own *Infantry Journal*
91 carried articles on Vegetius in 1938. Dankfried Schenk published an interesting article in *Klio* in
92 1930, which gives Vegetius the highest place among the writers of his time.

93 The present edition includes the first three books of Vegetius' work, omitting only repetitions. The
94 fourth and fifth books, both very brief, deal with the attack and defense of fortified places and with
95 naval operations. These are of interest only to military antiquarians and for that reason have not
96 been included. The present translation was made by Lieutenant John Clarke and published in
97 London in 1767. It is the best available in English and has been edited only to the minimum extent
98 necessary to conform to modern usage.

99 An excellent discussion of Vegetius can be found in *Warfare*, by Spaulding, Nickerson and Wright,
100 page 294, et sequens, Harcourt Brace & Co., 1925. Delpach, *La Tactique au 13me Siecle*, Paris,
101 1886, gives the best account of the influence of Vegetius on European military thought. Hans
102 Delbruck's discussion of Vegetius in *Geschichte der Kriegskunft*, Vol. II, Berlin, 1921, although
103 brief, is very acute.

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106 **Preface to Book I**

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To the Emperor Valentinian

It has been an old custom for authors to offer to their Princes the fruits of their studies in belles letters, from a persuasion that no work can be published with propriety but under the auspices of the Emperor, and that the knowledge of a Prince should be more general, and of the most important kind, as its influence is felt so keenly by all his subjects. We have many instances of the favorable reception which Augustus and his illustrious successors conferred on the works presented to them; and this encouragement of the Sovereign made the sciences flourish. The consideration of Your Majesty's superior indulgence for attempts of this sort, induced me to follow this example, and makes me at the same time almost forget my own inability when compared with the ancient writers. One advantage, however, I derive from the nature of this work, as it requires no elegance of expression, or extraordinary share of genius, but only great care and fidelity in collecting and explaining, for public use, the instructions and observations of our old historians of military affairs, or those who wrote expressly concerning them.

My design in this treatise is to exhibit in some order the peculiar customs and usages of the ancients in the choice and discipline of their new levies. Nor do I presume to offer this work to Your Majesty from a supposition that you are not acquainted with every part of its contents; but that you may see that the same salutary dispositions and regulations which your own wisdom prompts You to establish for the happiness of the Empire, were formerly observed by the founders thereof; and that Your Majesty may find with ease in this abridgement whatever is most useful on so necessary and important a subject.

167 Victory in war does not depend entirely upon numbers or mere courage; only skill and discipline
 168 will insure it. We find that the Romans owed the conquest of the world to no other cause than
 169 continual military training, exact observance of discipline in their camps and unwearied cultivation
 170 of the other arts of war. Without these, what chance would the inconsiderable numbers of the
 171 Roman armies have had against the multitudes of the Gauls? Or with what success would their
 172 small size have been opposed to the prodigious stature of the Germans? The Spaniards surpassed
 173 us not only in numbers, but in physical strength. We were always inferior to the Africans in wealth
 174 and unequal to them in deception and stratagem. And the Greeks, indisputably, were far superior
 175 to us in skill in arts and all kinds of knowledge.

176 But to all these advantages the Romans opposed unusual care in the choice of their levies and in
 177 their military training. They thoroughly understood the importance of hardening them by continual
 178 practice, and of training them to every maneuver that might happen in the line and in action. Nor
 179 were they less strict in punishing idleness and sloth. The courage of a soldier is heightened by his
 180 knowledge of his profession, and he only wants an opportunity to execute what he is convinced he
 181 has been perfectly taught. A handful of men, inured to war, proceed to certain victory, while on the
 182 contrary numerous armies of raw and undisciplined troops are but multitudes of men dragged to
 183 slaughter.

184 **THE SELECTION OF RECRUITS**

185 To treat our subject with some method, we shall first examine what provinces or nations are to be
 186 preferred for supplying the armies with recruits. It is certain that every country produces both
 187 brave men and cowards; but it is equally as certain that some nations are naturally more warlike
 188 than others, and that courage, as well as strength of body, depends greatly upon the influence of
 189 the different climates.

190 We shall next examine whether the city or the country produces the best and most capable
 191 soldiers. No one, I imagine, can doubt that the peasants are the most fit to carry arms for they
 192 from their infancy have been exposed to all kinds of weather and have been brought up to the
 193 hardest labor. They are able to endure the greatest heat of the sun, are unacquainted with the use
 194 of baths, and are strangers to the other luxuries of life. They are simple, content with little, inured
 195 to all kinds of fatigue, and prepared in some measure for a military life by their continual
 196 employment in their country-work, in handling the spade, digging trenches and carrying burdens.
 197 In cases of necessity, however, they are sometimes obliged to make levies in the cities. And these
 198 men, as soon as enlisted, should be taught to work on entrenchments, to march in ranks, to carry
 199 heavy burdens, and to bear the sun and dust. Their meals should be coarse and moderate; they
 200 should be accustomed to lie sometimes in the open air and sometimes in tents. After this, they
 201 should be instructed in the use of their arms. And if any long expedition is planned, they should be
 202 encamped as far as possible from the temptations of the city. By these precautions their minds, as
 203 well as their bodies, will properly be prepared for the service.

204 I realize that in the first ages of the Republic, the Romans always raised their armies in the city
 205 itself, but this was at a time when there were no pleasures, no luxuries to enervate them. The
 206 Tiber was then their only bath, and in it they refreshed themselves after their exercises and
 207 fatigues in the field by swimming. In those days the same man was both soldier and farmer, but a
 208 farmer who, when occasion arose, laid aside his tools and put on the sword. The truth of this is
 209 confirmed by the instance of Quintius Cincinnatus, who was following the plow when they came to
 210 offer him the dictatorship. The chief strength of our armies, then, should be recruited from the
 211 country. For it is certain that the less a man is acquainted with the sweets of life, the less reason
 212 he has to be afraid of death.

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215 **THE PROPER AGE FOR RECRUITS**

216 If we follow the ancient practice, the proper time for enlisting youth into the army is at their
217 entrance into the age of puberty. At this time instructions of every kind are more quickly imbibed
218 and more lastingly imprinted on the mind. Besides this, the indispensable military exercises of
219 running and leaping must be acquired before the limbs are too much stiffened by age. For it is
220 activity, improved by continual practice, which forms the useful and good soldier. Formerly, says
221 Sallust, the Roman youth, as soon as they were of an age to carry arms, were trained in the
222 strictest manner in their camps to all the fatigues and exercises of war. For it is certainly better
223 that a soldier, perfectly disciplined, should, through emulation, repine at his not being yet arrived
224 at a proper age for action, than have the mortification of knowing it is past. A sufficient time is also
225 required for his instruction in the different branches of the service. It is no easy matter to train the
226 horse or foot archer, or to form the legionary soldier to every part of the drill, to teach him not to
227 quit his post, to keep ranks, to take a proper aim and throw his missile weapons with force, to dig
228 trenches, to plant palisades, how to manage his shield, glance off the blows of the enemy, and how
229 to parry a stroke with dexterity. A soldier, thus perfect in his business, so far from showing any
230 backwardness to engage, will be eager for an opportunity of signaling himself.

231 **THEIR SIZE**

232 We find the ancients very fond of procuring the tallest men they could for the service, since the
233 standard for the cavalry of the wings and for the infantry of the first legionary cohorts was fixed at
234 six feet, or at least five feet ten inches. These requirements might easily be kept up in those times
235 when such numbers followed the profession of arms and before it was the fashion for the flower of
236 Roman youth to devote themselves to the civil offices of state. But when necessity requires it, the
237 height of a man is not to be regarded so much as his strength; and for this we have the authority
238 of Homer, who tells us that the deficiency of stature in Tydeus was amply compensated by his
239 vigor and courage.

240 **SIGNS OF DESIRABLE QUALITIES**

241 Those employed to superintend new levies should be particularly careful in examining the features
242 of their faces, their eyes, and the make of their limbs, to enable them to form a true judgment and
243 choose such as are most likely to prove good soldiers. For experience assures us that there are in
244 men, as well as in horses and dogs, certain signs by which their virtues may be discovered. The
245 young soldier, therefore, ought to have a lively eye, should carry his head erect, his chest should
246 be broad, his shoulders muscular and brawny, his fingers long, his arms strong, his waist small, his
247 shape easy, his legs and feet rather nervous than fleshy. When all these marks are found in a
248 recruit, a little height may be dispensed with, since it is of much more importance that a soldier
249 should be strong than tall.

250 **TRADES PROPER FOR NEW LEVIES**

251 In choosing recruits regard should be given to their trade. Fishermen, fowlers, confectioners,
252 weavers, and in general all whose professions more properly belong to women should, in my
253 opinion, by no means be admitted into the service. On the contrary, smiths, carpenters, butchers,
254 and huntsmen are the most proper to be taken into it. On the careful choice of soldiers depends
255 the welfare of the Republic, and the very essence of the Roman Empire and its power is so
256 inseparably connected with this charge, that it is of the highest importance not to be intrusted
257 indiscriminately, but only to persons whose fidelity can be relied on. The ancients considered
258 Sertorius' care in this point as one of the most eminent of his military qualifications. The soldiery to
259 whom the defense of the Empire is consigned and in whose hands is the fortune of war, should, if
260 possible, be of reputable families and unexceptionable in their manners. Such sentiments as may
261 be expected in these men will make good soldiers. A sense of honor, by preventing them from
262 behaving ill, will make them victorious.

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266 But what good can be expected from a man by nature a coward, though ever so well disciplined or
267 though he has served ever so many campaigns? An army raised without proper regard to the
268 choice of its recruits was never yet made good by length of time; and we are now convinced by
269 fatal experience that this is the source of all our misfortunes. So many defeats can only be imputed
270 to the effects of a long peace which has made us negligent and careless in the choice of our levies
271 and to the inclination so prevalent among the better sort in preferring the civil posts of the
272 government to the profession of arms and to the shameful conduct of the superintendents, who,
273 through interest or connivance, accept many men which those who are obliged to furnish
274 substitutes for the army choose to send, and admit such men into the service as the masters
275 themselves would not even keep for servants. Thus it appears that a trust of such importance
276 should be committed to none but men of merit and integrity.

277 **THE MILITARY MARK**

278 The recruit, however, should not receive the military mark* as soon as enlisted. He must first be
279 tried if fit for service; whether he has sufficient activity and strength; if he has capacity to learn his
280 duty; and whether he has the proper degree of military courage. For many, though promising
281 enough in appearance, are found very unfit upon trial. These are to be rejected and replaced by
282 better men; for it is not numbers, but bravery which carries the day.

283 After their examination, the recruits should then receive the military mark, and be taught the use
284 of their arms by constant and daily exercise. But this essential custom has been abolished by the
285 relaxation introduced by a long peace. We cannot now expect to find a man to teach what he never
286 learned himself. The only method, therefore, that remains of recovering the ancient customs is by
287 books, and by consulting the old historians. But they are of little service to us in this respect, as
288 they only relate the exploits and events of wars, and take no notice of the objects of our present
289 enquiries, which they considered as universally known.

290 **INITIAL TRAINING**

291 The first thing the soldiers are to be taught is the military step, which can only be acquired by
292 constant practice of marching quick and together. Nor is anything of more consequence either on
293 the march or in the line than that they should keep their ranks with the greatest exactness. For
294 troops who march in an irregular and disorderly manner are always in great danger of being
295 defeated. They should march with the common military step twenty miles in five summer-hours,
296 and with the full step, which is quicker, twenty-four miles in the same number of hours. If they
297 exceed this pace, they no longer march but run, and no certain rate can be assigned.

298 But the young recruits in particular must be exercised in running, in order to charge the enemy
299 with great vigor; occupy, on occasion, an advantageous post with greater expedition, and prevent
300 the enemy in their designs upon the same; that they may, when sent to reconnoiter, advance with
301 speed, return with greater celerity and more easily come up with the enemy in a pursuit.

302 Leaping is another very necessary exercise, to enable them to pass ditches or embarrassing
303 eminences of any kind without trouble or difficulty. There is also another very material advantage
304 to be derived from these exercises in time of action; for a soldier who advances with his
305 javelin, running and leaping, dazzles the eyes of his adversary, strikes him with terror, and gives
306 him the fatal stroke before he has time to put himself on his defense. Sallust, speaking of the
307 excellence of Pompey the Great in these particulars, tells us that he disputed the superiority in
308 leaping with the most active, in running with the most swift, and in exercises of strength with the
309 most robust. Nor would he ever have been able to have opposed Serrorius with success, if he had
310 not prepared both himself and his soldiers for action by continual exercises of this sort.

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315 **TO LEARN TO SWIM**

316 Every young soldier, without exception, should in the summer months be taught to swim; for it is
317 sometimes impossible to pass rivers on bridges, but the flying and pursuing army both are often
318 obliged to swim over them. A sudden melting of snow or fall of rain often makes them overflow
319 their banks, and in such a situation, the danger is as great from ignorance in swimming as from
320 the enemy. The ancient Romans, therefore, perfected in every branch of the military art by a
321 continued series of wars and perils, chose the Field of Mars as the most commodious for their
322 exercises on account of its vicinity to the Tiber, that the youth might therein wash off the sweat
323 and dust, and refresh themselves after their fatigues by swimming. The cavalry also as well as the
324 infantry, and even the horses and the servants of the army should be accustomed to this exercise,
325 as they are all equally liable to the same accidents.

326 **THE POST EXERCISE**

327 We are informed by the writings of the ancients that, among their other exercises, they had that of
328 the post. They gave their recruits round bucklers woven with willows, twice as heavy as those used
329 on real service, and wooden swords double the weight of the common ones. They exercised them
330 with these at the post both morning and afternoon.

331 This is an invention of the greatest use, not only to soldiers, but also to gladiators. No man of
332 either profession ever distinguished himself in the circus or field of battle, who was not perfect in
333 this kind of exercise. Every soldier, therefore, fixed a post firmly in the ground, about the height of
334 six feet. Against this, as against a real enemy, the recruit was exercised with the above mentioned
335 arms, as it were with the common shield and sword, sometimes aiming At the head or face,
336 sometimes at the sides, at others endeavoring to strike at the thighs or legs. He was instructed in
337 what manner to advance and retire, and in short how to take every advantage of his adversary;
338 but was thus above all particularly cautioned not to lay himself open to his antagonist while aiming
339 his stroke at him.

340 **NOT TO CUT, BUT TO THRUST WITH THE SWORD**

341 They were likewise taught not to cut but to thrust with their swords. For the Romans not only made
342 a jest of those who fought with the edge of that weapon, but always found them an easy conquest.
343 A stroke with the edges, though made with ever so much force, seldom kills, as the vital parts of
344 the body are defended both by the bones and armor. On the contrary, a stab, though it penetrates
345 but two inches, is generally fatal. Besides in the attitude of striking, it is impossible to avoid
346 exposing the right arm and side; but on the other hand, the body is covered while a thrust is given,
347 and the adversary receives the point before he sees the sword. This was the method of fighting
348 principally used by the Romans, and their reason for exercising recruits with arms of such a weight
349 at first was, that when they came to carry the common ones so much lighter, the greater
350 difference might enable them to act with greater security and alacrity in time of action.

351 **THE DRILL CALLED ARMATURA**

352 The new levies also should be taught by the masters at arms the system of drill called armatura, as
353 it is still partly kept up among us. Experience even at this time convinces us that soldiers, perfect
354 therein, are of the most service in engagements. And they afford certain proofs of the importance
355 and effects of discipline in the difference we see between those properly trained in this branch of
356 drill and the other troops. The old Romans were so conscious of its usefulness that they rewarded
357 the masters at arms with a double allowance of provision. The soldiers who were backward in this
358 drill were punished by having their allowance in barley. Nor did they receive it as usual, in wheat,
359 until they had, in the presence of the prefect, tribunes, or other principal officers of the legion,
360 showed sufficient proofs of their knowledge of every part of their study.

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364 No state can either be happy or secure that is remiss and negligent in the discipline of its troops.
365 For it is not profusion of riches or excess of luxury that can influence our enemies to court or

366 respect us. This can only be effected by the terror of our arms. It is an observation of Cato that.
367 misconduct in the common affairs of life may be retrieved, but that it is quite otherwise in war,
368 where errors are fatal and without remedy, and are followed by immediate punishment. For the
369 consequences of engaging an enemy, without skill or courage, is that part of the army is left on the
370 field of battle, and those who remain receive such an impression from their defeat that they dare
371 not afterwards look the enemy in the face.

372 **THE USE OF MISSILE WEAPONS**

373 Besides the aforementioned exercise of the recruits at the post, they were furnished with javelins
374 of greater weight than common, which they were taught to throw at the same post. And the
375 masters at arms were very careful to instruct them how to cast them with a proper aim and force.
376 This practice strengthens the arm and makes the soldier a good marksman.

377 **THE USE OF THE BOW**

378 A third or fourth of the youngest and fittest soldiers should also be exercised at the post with bows
379 and arrows made for that purpose only. The masters for this branch must be chosen with care and
380 must apply themselves diligently to teach the men to hold the bow in a proper position, to bend it
381 with strength, to keep the left hand steady. to draw the right with skill, to direct both the attention
382 and the eye to the object, and to take their aim with equal certainty either on foot or on horseback.
383 But this is not to be acquired without great application, nor to be retained without daily exercise
384 and practice.

385 The utility of good archers in action is evidently demonstrated by Cato in his treatise on military
386 discipline. To the institution of a body of troops of this sort Claudius owed his victory over an
387 enemy who, till that time, had constantly been superior to him. Scipio Africanus, before his battle
388 with the Numantines, who had made a Roman army ignominiously pass under the yoke, thought
389 he could have no likelihood of success except by mingling a number of select archers with every
390 century.

391 **THE SLING**

392 Recruits are to be taught the art of throwing stones both with the hand and sling. The inhabitants
393 of the Balearic Islands are said to have been the inventors of slings, and to have managed them
394 with surprising dexterity, owing to the manner of bringing up their children. The children were not
395 allowed to have their food by their mothers till they had first struck it with their sling. Soldiers,
396 notwithstanding their defensive armor, are often more annoyed by the round stones from the sling
397 than by all the arrows of the enemy. Stones kill without mangling the body, and the contusion is
398 mortal without loss of blood. It is universally known the ancients employed slingers in all their
399 engagements. There is the greater reason for instructing all troops, without exception, in this
400 exercise, as the sling cannot be reckoned any incumbrance, and often is of the greatest service,
401 especially when they are obliged to engage in stony places, to defend a mountain or an eminence,
402 or to repulse an enemy at the attack of a castle or city.

403 **THE LOADED JAVELIN**

404 The exercise of the loaded javelins, called martiobarbuli, must not be omitted. We formerly had
405 two legions in Illyricum, consisting of six thousand men each, which from their extraordinary
406 dexterity and skill in the use of these weapons were distinguished by the same appellation. They
407 supported for a long time the weight of all the wars and distinguished themselves so remarkably
408 that the Emperors Diocletian and Maximian on their accession honored them with the titles of
409 Jovian and Herculean and preferred them before all the other legions. Every soldier carries five of
410 these javelins in the hollow of his shield. And thus the legionary soldiers seem to supply the place
411 of archers, for they wound both the men and horses of the enemy before they come within reach of
412 the common missile weapons.

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414 **TO BE TAUGHT TO VAULT**

415 The ancients strictly obliged both the veteran soldiers and recruits to a constant practice of
416 vaulting. It has indeed reached our cimes, although little regard is paid to it at present. They had
417 wooden horses for that purpose placed in winter under cover and in summer in the field. The young
418 soldiers were taught to vault on them at first without arms, afterwards completely armed. And such
419 was their attention to this exercise that they were accustomed to mount and dismount on either
420 side indifferently, with their drawn swords or lances in their hands. By assiduous practice in the
421 leisure of peace, their cavalry was brought to such perfection of discipline that they mounted their
422 horses in an instant even amidst the confusion of sudden and unexpected alarms.

423 **AND TO CARRY BURDENS**

424 To accustom soldiers to carry burdens is also an essential part of discipline. Recruits in particular
425 should be obliged frequently to carry a weight of not less than sixty pounds (exclusive of their
426 arms), and to march with it in the ranks. This is because on difficult expeditions they often find
427 themselves under the necessity of carrying their provisions as well as their arms. Nor will they find
428 this troublesome when inured to it by custom, which makes everything easy. Our troops in ancient
429 times were a proof of this, and Virgil has remarked it in the following lines:

430 The Roman soldiers, bred in war's alarms,
431 Bending with unjust loads and heavy arms,
432 Cheerful their toilsome marches undergo,
433 And pitch their sudden camp before the foe.

434 **THE ARMS OF THE ANCIENTS**

435 The manner of arming the troops comes next under consideration. But the method of the ancients
436 no longer is followed. For though after the example of the Goths, the Alans and the Huns, we have
437 made some improvements in the arms of the cavalry, yet it is plain the infantry are entirely
438 defenseless. From the foundation of the city till the reign of the Emperor Gratian, the foot wore
439 cuirasses and helmets. But negligence and sloth having by degrees introduced a total relaxation of
440 discipline, the soldiers began to think their armor too heavy, as they seldom put it on. They first
441 requested leave from the Emperor to lay aside the cuirass and afterwards the helmet. In
442 consequence of this, our troops in their engagements with the Goths were often overwhelmed with
443 their showers of arrows. Nor was the necessity of obliging the infantry to resume their cuirasses
444 and helmets discovered, notwithstanding such repeated defeats, which brought on the destruction
445 of so many great cities.

446 Troops, defenseless and exposed to all the weapons of the enemy, are more disposed to fly than
447 fight. What can be expected from a foot-archer without cuirass or helmet, who cannot hold at once
448 his bow and shield; or from the ensigns whose bodies are naked, and who cannot at the same time
449 carry a shield and the colors? The foot soldier finds the weight of a cuirass and even of a helmet
450 intolerable. This is because he is so seldom exercised and rarely puts them on.

451 But the case would be quite different, were they even heavier than they are, if by constant practice
452 he had been accustomed to wear them. But it seems these very men, who cannot support the
453 weight of the ancient armor, think nothing of exposing themselves without defense to wounds and
454 death, or, which is worse, to the shame of being made prisoners, or of betraying their country by
455 flight; and thus to avoid an inconsiderable share of exercise and fatigue, suffer themselves
456 ignominiously to be cut in pieces. With what propriety could the ancients call the infantry a wall,
457 but that in some measure they resembled it by the complete armor of the legionary soldiers who
458 had shields, helmets, cuirasses, and greaves of iron on the right leg; and the archers who had
459 gauntlets on the left arm. These were the defensive arms of the legionary soldiers. Those who
460 fought in the first line of their respective legions were called principes, in the second hastati, and in
461 third triarii.

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464 The triarii, according to their method of discipline, rested in time of action on one knee, under
465 cover of their shields, so that in this position they might be less exposed to the darts of the enemy

466 than if they stood upright; and also, when there was a necessity for bringing them up, that they
467 might be fresh, in full vigor and charge with the greater impetuosity. There have been many
468 instances of their gaining a complete victory after the entire defeat of both the principes and
469 hastati.

470 The ancients had likewise a body of light infantry, slingers, and ferentarii (the light troops), who
471 were generally posted on the wings and began the engagement. The most active and best
472 disciplined men were selected for this service; and as their number was not very great, they easily
473 retired in case of a repulse through the intervals of the legion, without thus occasioning the least
474 disorder in the line.

475 The Pamonian leather caps worn by our soldiers were formerly introduced with a different design.
476 The ancients obliged the men to wear them at all times so that being constantly accustomed to
477 have the head covered they might be less sensible of the weight of the helmet.

478 As to the missile weapons of the infantry, they were javelins headed with a triangular sharp iron,
479 eleven inches or a foot long, and were called piles. When once fixed in the shield it was impossible
480 to draw them out, and when thrown with force and skill, they penetrated the cuirass without
481 difficulty. At present they are seldom used by us, but are the principal weapon of the barbarian
482 heavy-armed foot. They are called bebrae, and every man carries two or three of them to battle.

483 It must be observed that when the soldiers engage with the javelin, the left foot should be
484 advanced, for, by this attitude the force required to throw it is considerably increased. On the
485 contrary, when they are close enough to use their piles and swords, the right foot should be
486 advanced, so that the body may present less aim to the enemy, and the right arm be nearer and in
487 a more advantageous position for striking. Hence it appears that it is as necessary to provide
488 soldiers with defensive arms of every kind as to instruct them in the use of offensive ones. For it is
489 certain a man will fight with greater courage and confidence when he finds himself properly armed
490 for defense.

491 **ENTRENCHED CAMPS**

492 Recruits are to be instructed in the manner of entrenching camps, there being no part of discipline
493 so necessary and useful as this. For in a camp, well chosen and entrenched, the troops both day
494 and night lie secure within their works, even though in view of the enemy. It seems to resemble a
495 fortified city which they can build for their safety wherever they please. But this valuable art is now
496 entirely lost, for it is long since any of our camps have been fortified either with trenches or
497 palisades. By this neglect our forces have been often surprised by day and night by the enemy's
498 cavalry and suffered very severe losses. The importance of this custom appears not only from the
499 danger to which troops are perpetually exposed who encamp without such precautions, but from
500 the distressful situation of an army that, after receiving a check in the field, finds itself without
501 retreat and consequently at the mercy of the enemy. A camp, especially in the neighborhood of an
502 enemy, must be chosen with great care. Its situation should be strong by nature, and there should
503 be plenty of wood, forage and water. If the army is to continue in it any considerable time,
504 attention must be had to the salubrity of the place. The camp must not be commanded by any
505 higher grounds from whence it might be insulted or annoyed by the enemy, nor must the location
506 be liable to floods which would expose the army to great danger. The dimensions of the camps
507 must be determined by the number of troops and quantity of baggage, that a large army may have
508 room enough, and that a small one may not be obliged to extend itself beyond its proper ground.
509 The form of the camps must be determined by the site of the country, in conformity to which they
510 must be square, triangular or oval. The Praetorian gate should either front the east or the enemy.
511 In a temporary camp it should face the route by which the army is to march. Within this gate the
512 tents of the first centuries or cohorts are pitched, and the dragons* and other ensigns planted.

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515 The Decumane gate is directly opposite to the Praetorian in the rear of the camp, and through this
516 the soldiers are conducted to the place appointed for punishment or execution.

517 There are two methods of entrenching a camp. When the danger is not imminent, they carry a
518 slight ditch round the whole circuit, only nine feet broad and seven deep. With the turf taken from
519 this they make a kind of wall or breastwork three feet high on the inner side of the ditch. But
520 where there is reason to be apprehensive of attempts of the enemy, the camp must be surrounded
521 with a regular ditch twelve feet broad and nine feet deep perpendicular from the surface of the
522 ground. A parapet is then raised on the side next the camp, of the height of four feet, with hurdles
523 and fascines properly covered and secured by the earth taken out of the ditch. From these
524 dimensions the interior height of the intrenchment will be found to be thirteen feet, and the
525 breadth of the ditch twelve. On the top of the whole are planted strong palisades which the soldiers
526 carry constantly with them for this purpose. A sufficient number of spades, pickaxes, wicker
527 baskets and tools of all kinds are to be provided for these works.

528 There is no difficulty in carrying on the fortifications of a camp when no enemy is in sight. But if the
529 enemy is near, all the cavalry and half the infantry are to be drawn up in order of battle to cover
530 the rest of the troops at work on the entrenchments and be ready to receive the enemy if they
531 offer to attack. The centuries are employed by turns on the work and are regularly called to the
532 relief by a crier till the whole is completed. It is then inspected and measured by the centurions,
533 who punish such as have been indolent or negligent. This is a very important point in the discipline
534 of young soldiers, who when properly trained to it will be able in an emergency to fortify their camp
535 with skill and expedition.

536 **EVOLUTIONS**

537 No part of drill is more essential in action than for soldiers to keep their ranks with the greatest
538 exactness, without opening or closing too much. Troops too much crowded can never fight as they
539 ought, and only embarrass one another. If their order is too open and loose, they give the enemy
540 an opportunity of penetrating. Whenever this happens and they are attacked in the rear, universal
541 disorder and confusion are inevitable. Recruits should therefore be constantly in the field, drawn up
542 by the roll and formed at first into a single rank. They should learn to dress in a straight line and to
543 keep an equal and just distance between man and man. They must then be ordered to double the
544 rank, which they must perform very quickly, and instantly cover their file leaders. In the next
545 place, they are to double again and form four deep. And then the triangle or, as it is commonly
546 called, the wedge, a disposition found very serviceable in action. They must be taught to form the
547 circle or orb; for well-disciplined troops, after being broken by the enemy, have thrown themselves
548 into this position and have thereby prevented the total rout of the army. These evolutions, often
549 practiced in the field of exercise, will be found easy in execution on actual service.

550 **MONTHLY MARCHES**

551 It was a constant custom among the old Romans, confirmed by the Ordinances of Augustus and
552 Hadrian, to exercise both cavalry and infantry three times in a month by marches of a certain
553 length. The foot were obliged to march completely armed the distance of ten miles from the camp
554 and return, in the most exact order and with the military step which they changed and quickened
555 on some part of the march. Their cavalry likewise, in troops and properly armed, performed the
556 same marches and were exercised at the same time in their peculiar movement and evolutions;
557 sometimes, as if pursuing the enemy, sometimes retreating and returning again with greater
558 impetuosity to the charge. They made these marches not in plain and even ground only, but both
559 cavalry and infantry were ordered into difficult and uneven places and to ascend or descend
560 mountains, to prepare them for all kinds of accidents and familiarize them with the different
561 maneuvers that the various situations of a country may require.

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566 **CONCLUSION**

567 These military maxims and instructions, invincible Emperor, as a proof of my devotion and zeal for
568 your service, I have carefully collected from the works of all the ancient authors on the subject. My
569 design herein is to point out the certain method of forming good and serviceable armies, which can
570 only be accomplished by an exact imitation of the ancients in their care in the choice and discipline
571 of their levies. Men are not degenerated in point of courage, nor are the countries that produced
572 the Lacedaemonians, the Athenians, the Marsians, the Samnites, the Peligni and even the Romans
573 themselves, yet exhausted. Did not the Epirots acquire in former times a great reputation in war?
574 Did not the Macedonians and Thessalians, after conquering the Persians, penetrate even into India?
575 And it is well known that the warlike dispositions of the Dacians, Moesians and Thracians gave rise
576 to the fable that Mars was born among them.

577 To pretend to enumerate the different nations so formidable of old, all which now are subject to the
578 Romans, would be tedious. But the security established by long peace has altered their
579 dispositions, drawn them off from military to civil pursuits and infused into them a love of idleness
580 and ease. Hence a relaxation of military discipline insensibly ensued, then a neglect of it, and it
581 sunk at last into entire oblivion. Now will it appear surprising that this alteration should have
582 happened in latter times, if we consider that the peace, which lasted about twenty years or
583 somewhat more after the first Punic war, enervated the Romans, before everywhere victorious, by
584 idleness and neglect of discipline to such a degree, that in the second Punic war they were not able
585 to keep the field against Hannibal. At last, after the defeat of many consuls and the loss of many
586 officers and armies, they were convinced that the revival of discipline was the only road to victory
587 and thereby recovered their superiority. The necessity, therefore, of discipline cannot be too often
588 inculcated, as well as the strict attention requisite in the choice and training of new levies. It is also
589 certain that it is a much less expense to a State to train its own subjects to arms than to take
590 foreigners into its pay.

591 * This mark was imprinted on the hands of the soldiers, either with a hot iron, or in some other
592 manner. It was indelible.

593 * The dragon was the particular ensign of each cohort.

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626 Such a continued series of victories and triumphs proved incontestably Your Majesty's full and
627 perfect knowledge of the military discipline of the ancients. Success in any profession is the most
628 certain mark of skill in it. By a greatness of mind, above human comprehension Your Majesty
629 condescends to seek instruction from the ancients, notwithstanding your own recent exploits
630 surpass antiquity itself. On receiving Your Majesty's orders to continue this abridgement, not so
631 much for your instruction as convenience, I knew not how to reconcile my devotion to Your
632 commands with the respect due to Your Majesty. Would it not be the greatest height of
633 presumption to pretend to mention the art of war to the Lord and Master of the world and the
634 Conqueror of all the barbarous nations, unless it were to describe his own actions? But
635 disobedience to the will of so great a Prince would be both highly criminal and dangerous. My
636 obedience, therefore, made me presumptuous, from the apprehensions of appearing more so by a
637 contrary conduct. And in this I was not a little encouraged by the late instance of Your Majesty's
638 indulgence. My treatise on the choice and discipline of new levies met with a favorable reception
639 from Your Majesty, and since a work succeeded so well, composed of my own accord, I can have
640 no fears for one undertaken by your own express commands.

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685 The military establishment consists of three parts, the cavalry, infantry and marine. The wings of
686 cavalry were so called from their similitude to wings in their extension on both sides of the main
687 body for its protection. They are now called vexillations from the kind of standards peculiar to
688 them. The legionary horse are bodies particularly annexed to each legion, and of a different kind;
689 and on their model were organized the cavalry called Ocreati, from the light boots they wear. The
690 fleet consists of two divisions, the one of men of war called Liburnae, and the other of armed
691 sloops. The cavalry are designed for plains. Fleets are employed for the protection of seas and
692 rivers. The infantry are proper for the defense of eminences, for the garrisons of cities and are
693 equally serviceable in plain and in uneven ground. The latter, therefore, from their facility of acting
694 everywhere, are certainly the most useful and necessary troops to a state exclusively of the
695 consideration of their being maintained at a less expense. The infantry are divided into two corps,
696 the legions and auxiliaries, the latter of which are furnished by allies or confederates. The peculiar
697 strength of the Romans always consisted in the excellent organization of their legions. They were
698 so denominated ab eligendo, from the care and exactness used in the choice of the soldiers. The
699 number of legionary troops in an army is generally much more considerable than that of the
700 auxiliaries.

701 **DIFFERENCE BETWEEN THE LEGIONS AND AUXILIARIES**

702 The Macedonians, the Greeks and the Dardanians formed their troops into phalanxes of eight
703 thousand men each. The Gauls, Celtiberians and many other barbarous nations divided their
704 armies into bodies of six thousand each. The Romans have their legions usually six thousand
705 strong, sometimes more.

706 We shall now explain the difference between the legions and the auxiliaries. The latter are hired
707 corps of foreigners assembled from different parts of the Empire, made up of different numbers,
708 without knowledge of one another or any tie of affection. Each nation has its own peculiar
709 discipline, customs and manner of fighting. Little can be expected from forces so dissimilar in every
710 respect, since it is one of the most essential points in military undertakings that the whole army
711 should be put in motion and governed by one and the same order. But it is almost impossible for
712 men to act in concert under such varying and unsettled circumstances. They are, however, when
713 properly trained and disciplined, of material service and are always joined as light troops with the
714 legions in the line. And though the legions do not place their principal dependence on them, yet
715 they look on them as a very considerable addition to their strength.

716 But the complete Roman legion, in its own peculiar cohorts, contains within itself the heavy-armed
717 foot, that is: the principes, hastati, triarii, and antefignani, the lightarmed foot, consisting of the
718 ferentarii, archers, slingers, and balistarii, together with the legionary cavalry incorporated with it.
719 These bodies, all actuated with the same spirit, are united inseparably in their various dispositions
720 for forming, encamping and fighting. Thus the legion is compact and perfect in all its parts and,
721 without any foreign assistance, has always been superior to any force that could be brought
722 against it. The Roman greatness is a proof of the excellence of their legions, for with them they
723 always defeated whatever numbers of the enemy they thought fit, or their circumstances gave
724 them an opportunity to engage.

725 **CAUSES OF DECAY OF THE LEGION**

726 The name of the legion remains indeed to this day in our armies, but its strength and substance
727 are gone, since by the neglect of our predecessors, honors and preferments, which were formerly
728 the recompenses of merit and long services, were to be attained only by interest and favor. Care is
729 no longer taken to replace the soldiers, who after serving their full time, have received their
730 discharges. The vacancies continually happening by sickness, discharges, desertion and various
731 other casualties, if not supplied every year or even every month, must in time disable the most
732 numerous army. Another cause of the weakness of our legions is that in them the soldiers find the
733 duty hard, the arms heavy, the rewards distant and the discipline severe. To avoid these
734 inconveniences, the young men enlist in the auxiliaries, where the service is less laborious and they
735 have reason to expect more speedy recompenses.

736 Cato the Elder, who was often Consul and always victorious at the head of the armies, believed he
737 should do his country more essential service by writing on military affairs, than by all his exploits in
738 the field. For the consequences of brave actions are only temporary, while whatever is committed

739 to writing for public good is of lasting benefit. Several others have followed his example,
740 particularly Frontinus, whose elaborate works on this subject were so well received by the Emperor
741 Trajan. These are the authors whose maxims and institutions I have undertaken to abridge in the
742 most faithful and concise manner.

743 The expense of keeping up good or bad troops is the same; but it depends wholly on You, most
744 August Emperor, to recover the excellent discipline of the ancients and to correct the abuses of
745 later times. This is a reformation the advantages of which will be equally felt by ourselves and our
746 posterity.

747 **THE ORGANIZATION OF THE LEGION**

748 All our writers agree that never more than two legions, besides auxiliaries, were sent under the
749 command of each consul against the most numerous armies of the enemies. Such was the
750 dependence on their discipline and resolution that this number was thought sufficient for any war
751 they were engaged in. I shall therefore explain the organization of the ancient legion according to
752 the military constitution. But if the description appear obscure or imperfect, it is not to be imputed
753 to me, but to the difficulty of the subject itself, which is therefore to be examined with the greater
754 attention. A prince, skilled himself in military affairs, has it in his power to make himself invincible
755 by keeping up whatever number of well disciplined forces he thinks proper.

756 The recruits having thus been carefully chosen with proper attention to their persons and
757 dispositions, and having been daily exercised for the space of four months at least, the legion is
758 formed by the command and under the auspices of the Emperor. The military mark, which is
759 indelible, is first imprinted on the hands of the new levies, and as their names are inserted in the
760 roll of the legions they take the usual oath, called the military oath. They swear by God, by Christ
761 and by the Holy Ghost; and by the Majesty of the Emperor who, after God, should be the chief
762 object of the love and veneration of mankind. For when he has once received the title of August,
763 his subjects are bound to pay him the most sincere devotion and homage, as the representative of
764 God on earth. And every man, whether in a private or military station, serves God in serving him
765 faithfully who reigns by His authority. The soldiers, therefore, swear they will obey the Emperor
766 willingly and implicitly in all his commands, that they will never desert and will always be ready to
767 sacrifice their lives for the Roman Empire.

768 The legion should consist of ten cohorts, the first of which exceeds the others both in number and
769 quality of its soldiers, who are selected to serve in it as men of some family and education. This
770 cohort has the care of the eagle, the chief ensign in the Roman armies and the standard of the
771 whole legion, as well as of the images of the emperors which are always considered as sacred. It
772 consists of eleven hundred and fifty foot and one hundred and thirty-two horse cuirassiers, and is
773 distinguished by the name of the Millarian Cohort. It is the head of the legion and is always first
774 formed on the right of the first line when the legion draws up in order of battle.

775 The second cohort contains five hundred and fifty-five foot and sixty-six horse, and is called the
776 Quingentarian Cohort. The third is composed of five hundred and fifty-five foot and sixty-six horse,
777 generally chosen men, on account of its situation in the center of the first line. The fourth consists
778 of the same number of five hundred and fifty-five foot and sixty-six horse. The fifth has likewise
779 five hundred and fifty-five foot and sixty-six horse, which should be some of the best men, being
780 posted on the left flank as the first cohort is on the right. These five cohorts compose the first line.

781 The sixth includes five hundred and fifty-five foot and sixty-six horse, which should be the flower of
782 the young soldiers as it draws up in the rear of the eagle and the images of the emperors, and on
783 the right of the second line. The seventh contains five hundred and fifty-five foot and sixty-six
784 horse. The eighth is composed of five hundred and fifty-five foot and sixty-six horse, all selected
785 troops, as it occupies the center of the second line. The ninth has five hundred and fifty-five foot
786 and sixty-six horse. The tenth consists of the same number of five hundred and fifty-five foot and
787 sixty-six horse and requires good men, as it closes the left flank of the second line. These ten
788 cohorts form the complete legions, consisting in the whole of six thousand one hundred foot and
789 seven hundred and twenty-six horses. A legion should never be composed of a less number of
790 men, but it is sometimes stronger by the addition of other Millarian Cohorts.

791 **THE OFFICERS OF THE LEGION**

792 Having shown the ancient establishment of the legion, we shall now explain the names of the
793 principal soldiers or, to use the proper term, the officers, and their ranks according to the present
794 rolls of the legions. The first tribune is appointed by the express commission and choice of the
795 Emperor. The second tribune rises to that rank by length of service. The tribunes are so called from
796 their command over the soldiers, who were at first levied by Romulus out of the different tribes.
797 The officers who in action commanded the orders or divisions are called Ordinarii. The Augustales
798 were added by Augustus to the Ordinarii; and the Flaviales were appointed by Flavius Vespasian to
799 double the number of the Augustales. The eagle-bearers and the image-bearers are those who
800 carry the eagles and images of the Emperors. The Optiones are subaltern officers, so denominated
801 from their being selected by the option of their superior officers, to do their duty as their
802 substitutes or lieutenants in case of sickness or other accident. The ensign-bearers carry the
803 ensigns and are called Draconarii. The Tesserarii deliver the parole and the orders of the general to
804 the different messes of the soldiers. The Campignei or Antefignani are those whose duty it is to
805 keep the proper exercises and discipline among the troops. The Metatores are ordered before the
806 army to fix on the ground for its encampments. The Beneficiarii are so named from their owing
807 their promotion to the benefit or interest of the Tribunes. The Librarii keep the legionary accounts.
808 The Tubicines, Cornicines, and Buccinatores derive their appellations from blowing the trumpet,
809 cornet, and buccina. Those who, expert in their exercises, receive a double allowance of provisions,
810 are called Armaturae Duplares, and those who have but a single portion, Simplares. The Mensores
811 mark out the ground by measure for the tents in an encampment, and assign the troops their
812 respective quarters in garrison. The Torquati, so denominated from the gold collars given them in
813 reward for their bravery, had besides this honor different allowances. Those who received double
814 were called Torquati Duplares, and those who had only single, Simplares. There were, for the same
815 reason, Candidatii Duplares, and Candidatii Simplares. These are the principal soldiers or officers
816 distinguished by their rank and privileges thereto annexed. The rest are called Munifices, or
817 working soldiers, from their being obliged to every kind of military work without exception.
818 Formerly it was the rule that the first Princeps of the legion should be promoted regularly to the
819 rank of Centurion of the Primiple. He not only was entrusted with the eagle but commanded four
820 centuries, that is, four hundred men in the first line. As head of the legion he had appointments of
821 great honor and profit. The first Hastatus had the command of two centuries or two hundred men
822 in the second line, and is now called Ducenarius. The Princeps of the first cohort commanded a
823 century and a half, that is, one hundred and fifty men, and kept in a great measure the general
824 detail of the legion. The second Hastatus had likewise a century and a half, or one hundred and
825 fifty men. The first Triarius had the command of one hundred men. Thus the ten centuries of the
826 first cohort were commanded by five Ordinarii, who by the ancient establishment enjoyed great
827 honors and emoluments that were annexed to this rank in order to inspire the soldiers of the
828 legions with emulation to attain such ample and considerable rewards. They had also Centurions
829 appointed to each century, now called Centenarii and Decani, who commanded ten men, now
830 called heads of messes. The second cohort had five Centurions; and all the rest to the tenth
831 inclusively the same number. In the whole legion there were fiftyfive.

832 Lieutenants of consular dignity were formerly sent to command in the armies under the general,
833 and their authority extended over both the legions and auxiliaries in peace and war. Instead of
834 these officers, persons of high rank are now substituted with the title of Masters of the Forces.
835 They are not limited to the command of two legions only, but have often a greater number. But the
836 peculiar officer of the legion was the Praefect, who was always a count of the first order. On him
837 the chief command devolved in the absence of the lieutenant. The Tribunes, Centurions, and all the
838 soldiers in general were under his orders: He gave out the parole and order for the march and for
839 the guards. And if a soldier committed a crime, by his authority the Tribune adjudged him to
840 punishment. He had charge of the arms, horses, clothing and provisions. It was also his duty to
841 keep both the legionary horse and foot in daily exercise and to maintain the strictest discipline. He
842 ought to be a careful and diligent officer, as the sole charge of forming the legion to regularity and
843 obedience depended on him and the excellence of the soldiers redounded entirely to his own honor
844 and credit.

845 The Praefect of the camp, though inferior in rank to the former, had a post of no small importance.
846 The position of the camp, the direction of the entrenchments, the inspection of the tents or huts of
847 the soldiers and the baggage were comprehended in his province. His authority extended over the
848 sick, and the physicians who had the care of them; and he regulated the expenses relative thereto.
849 He had the charge of providing carriages, bathorses and the proper tools for sawing and cutting

850 wood, digging trenches, raising parapets, sinking wells and bringing water into the camp. He
851 likewise had the care of furnishing the troops with wood and straw, as well as the rams, onagri,
852 balistae and all the other engines of war under his direction. This post was always conferred on an
853 officer of great skill, experience and long service, and who consequently was capable of instructing
854 others in those branches of the profession in which he had distinguished himself.

855 **THE PRAEFECT OF THE WORKMEN**

856 The legion had a train of joiners, masons, carpenters, smiths, painters, and workmen of every kind
857 for the construction of barracks in the winter-camps and for making or repairing the wooden
858 towers, arms, carriages and the various sorts of machines and engines for the attack or defense of
859 places. They had also traveling workshops in which they made shields, cuirasses, helmets, bows,
860 arrows, javelins and offensive and defensive arms of all kinds. The ancients made it their chief care
861 to have every thing for the service of the army within the camp. They even had a body of miners
862 who, by working under ground and piercing the foundations of walls, according to the practice of
863 the Beffi, penetrated into the body of a place. All these were under the direction of the officer
864 called the praefect of the workmen.

865 **THE TRIBUNE OF THE SOLDIERS**

866 We have observed that the legions had ten cohorts, the first of which, called the Millarian Cohort,
867 was composed of men selected on account of their circumstances, birth, education, person and
868 bravery. The tribune who commanded them was likewise distinguished for his skill in his exercises,
869 for the advantages of his person and the integrity of his manners. The other cohorts were
870 commanded, according to the Emperor's pleasure, either by tribunes or other officers
871 commissioned for that purpose. In former times the discipline was so strict that the tribunes or
872 officers abovementioned not only caused the troops under their command to be exercised daily in
873 their presence, but were themselves so perfect in their military exercises as to set them the
874 example. Nothing does so much honor to the abilities or application of the tribune as the
875 appearance and discipline of the soldiers, when their apparel is neat and clean, their arms bright
876 and in good order and when they perform their exercises and evolutions with dexterity.

877 **CENTURIES AND ENSIGNS OF THE FOOT**

878 The chief ensign of the whole legion is the eagle and is carried by the eagle-bearer. Each cohort
879 has also its own peculiar ensign, the Dragon, carried by the Draconarius. The ancients, knowing the
880 ranks were easily disordered in the confusion of action, divided the cohorts into centuries and gave
881 each century an ensign inscribed with the number both of the cohort and century so that the men
882 keeping it in sight might be prevented from separating from their comrades in the greatest
883 tumults. Besides the centurions, now called centenarii, were distinguished by different crests on
884 their helmets, to be more easily known by the soldiers of their respective centuries. These
885 precautions prevented any mistake, as every century was guided not only by its own ensign but
886 likewise by the peculiar form of the helmet of its commanding officers. The centuries were also
887 subdivided into messes of ten men each who lay in the same tent and were under orders and
888 inspection of a Decanus or head of the mess. These messes were also called Maniples from their
889 constant custom of fighting together in the same company or division.

890 **LEGIONARY TROOPS OF HORSE**

891 As the divisions of the infantry are called centuries, so those of the cavalry are called troops. A
892 troop consists of thirty-two men and is commanded by a Decurion. Every century has its ensign
893 and every troop its Standard. The centurion in the infantry is chosen for his size, strength and
894 deXterity in throwing his missile weapons and for his skill in the use of his sword and shield; in
895 short for his expertness in all the exercises. He is to be vigilant, temperate, accive and readier to
896 execute the orders he receives than to talk; Strict in exercising and keeping up proper discipline
897 among his soldiers, in obliging them to appear clean and well-dressed and to have their arms
898 constantly rubbed and bright. In like manner the Decurion is to be preferred to the command of a
899 troop for his activity and address in mounting his horse completely armed; for his skill in riding and
900 in the use of the lance and bow; for his attencion in forming his men to all the evolutions of the
901 cavaIry; and for his care in obliging them to keep their cuirasses, lances and helmets always bright
902 and in good order. The splendor of the arms has no inconsiderable effect in striking terror into an

903 enemy. Can that man be reckoned a good soldier who through negligence suffers his arms to be
904 spoiled by dirt and rust? In short, it is the duty of the Decurion to be attentive to whatever
905 concerns the health or discipline of the men or horses in his troop.

906 **DRAWING UP A LEGION IN ORDER OF BATTLE**

907 We shall exemplify the manner of drawing up an army in order of battle in the instance of one
908 legion, which may serve for any number. The cavalry are posted on the wings. The infantry begin
909 to form on a line with the first cohort on the right. The second cohort draws up on the left of the
910 first; the third occupies the center; the fourth is posted next; and the fifth closes the left flank. The
911 ordinarii, the other officers and the soldiers of the first line, ranged before and round the ensigns,
912 were called the principes. They were all heavy armed troops and had helmets, cuirasses, greaves,
913 and shields. Their offensive weapons were large swords, called spathae, and smaller ones called
914 semispathae together with five loaded javelins in the concavity of the shield, which they threw at
915 the first charge. They had likewise two other javelins, the largest of which was composed of a staff
916 five feet and a half long and a triangular head of iron nine inches long. This was formerly called the
917 pilum, but now it is known by the name of spiculum. The soldiers were particularly exercised in the
918 use of this weapon, because when thrown with force and skill it often penetrated the shields of the
919 foot and the cuirasses of the horse. The other javelin was of smaller size; its triangular point was
920 only five inches long and the staff three feet and one half. It was anciently called verriculum but
921 now verutum.

922 The first line, as I said before, was composed of the principes; the hastati formed the second and
923 were armed in the same manner. In the second line the sixth cohort was posted on the right flank,
924 with the seventh on its left; the eighth drew up in the center; the ninth was the next; and the
925 tenth always closed the left flank. In the rear of these two lines were the ferentarii, light infantry
926 and the troops armed with shields, loaded javelins, swords and common missile weapons, much in
927 the same manner as our modern soldiers. This was also the post of the archers who had helmets,
928 cuirasses, swords, bows and arrows; of the slingers who threw stones with the common sling or
929 with the fustibalus; and of the tragularii who annoyed the enemy with arrows from the
930 manubalistae or arcubalistae.

931 In the rear of all the lines, the triarii, completely armed, were drawn up. They had shields,
932 cuirasses, helmets, greaves, swords, daggers, loaded javelins, and two of the common missile
933 weapons. They rested during the action on one knee, so that if the first lines were obliged to give
934 way, they might be fresh when brought up to the charge, and thereby retrieve what was lost and
935 recover the victory. All the ensigns though, of the infantry, wore cuirasses of a smaller sort and
936 covered their helmets with the shaggy skins of beasts to make themselves appear more terrible to
937 the enemy. But the centurions had complete cuirasses, shields, and helmets of iron, the crest of
938 which, placed transversely thereon, were ornamented with silver that they might be more easily
939 distinguished by their respective soldiers.

940 The following disposition deserves the greatest attention. In the beginning of an engagement, the
941 first and second lines remained immovable on their ground, and the triarii in their usual positions.
942 The light-armed

943 troops, composed as above mentioned, advanced in the front of the line, and attacked the enemy.
944 If they could make them give way, they pursued them; but if they were repulsed by superior
945 bravery or numbers, they retired behind their own heavy armed infantry, which appeared like a
946 wall of iron and renewed the action, at first with their missile weapons, then sword in hand. If they
947 broke the enemy they never pursued them, least they should break their ranks or throw the line
948 into confusion, and lest the enemy, taking advantage of their disorder, should return to the attack
949 and destroy them without difficulty. The pursuit therefore was entirely left to the light-armed
950 troops and the cavalry. By these precautions and dispositions the legion was victorious without
951 danger, or if the contrary happened, was preserved without any considerable loss, for as it is not
952 calculated for pursuit, it is likewise not easily thrown into disorder.

953 **NAMES OF SOLDIERS INSCRIBED ON THEIR SHIELDS**

954 Lest the soldiers in the confusion of battle should be separated from their comrades, every cohort
955 had its shields painted in a manner peculiar to itself. The name of each soldier was also written on

956 his shield, together with the number of the cohort and century to which he belonged. From this
957 description we may compare the legion, when in proper order, to a well fortified city as containing
958 within itself every thing requisite in war, wherever it moved. It was secure from any sudden
959 attempt or surprise of an enemy by its expeditious method of entrenching its camp even in the
960 open plains and it was always provided with troops and arms of every kind. To be victorious,
961 therefore, over our enemies in the field, we must unanimously supplicate heaven to dispose the
962 Emperor to reform the abuses in raising our levies and to recruit our legions after the method of
963 the ancients. The same care in choosing and instructing our young soldiers in all military exercises
964 and drills will soon make them equal to the old Roman troops who subdued the whole world. Nor
965 let this alteration and loss of ancient discipline in any way affect Your Majesty, since it is a
966 happiness reserved for You alone both to restore the ancient ordinances and establish new ones for
967 the public welfare. Every work before the attempt carries in it an appearance of difficulty; but in
968 this case, if the levies are made by careful and experienced officers, an army may be raised,
969 disciplined and rendered fit for service in a very short time; for the necessary expenses once
970 provided, diligence soon effects whatever it undertakes.

971 **RECORDS AND ACCOUNTS**

972 Several posts in the legion requiring men of some education, the superintendents of the levies
973 should select some recruits for their skill in writing and accounts, besides the qualification to be
974 attended to in general, such as size, strength and proper disposition for the service. For the whole
975 detail of the legion, including the lists of the soldiers exempted from duty on private accounts, the
976 rosters for their tour of military duties and their pay lists, is daily entered in the legionary books
977 and kept we may almost say, with greater exactness than the regulations of provisions or other
978 civil matters in the registers of the police. The daily guards in time of peace, the advanced guards
979 and outposts in time of war, which are mounted regularly by the centuries and messes in their
980 turns, are likewise punctually kept in rolls for that purpose, with the name of each soldier whose
981 tour is past, that no one may have injustice done him or be excused from his duty by favor.

982 They are also exact in entering the time and limitation of furloughs, which formerly were never
983 granted without difficulty and only on real and urgent business. They then never suffered the
984 soldiers to attend on any private person or to concern themselves in private occupations, thinking
985 it absurd and improper that the Emperor's soldiers, clothed and subsisted at the public expense,
986 should follow any other profession. Some soldiers, however, were allowed for the service of the
987 praefects, tribunes and even of the other officers, out of the number of the accensi or such as were
988 raised after the legion was complete. These latter are now called supernumeraries. The regular
989 troops were obliged to carry their wood, hay, water and straw into the camp themselves. From
990 such kind of services they were called munifices.

991 **SOLDIER'S DEPOSITS**

992 The institution of the ancients which obliged the soldiers to deposit half of every donative they
993 received at the colors was wise and judicious; the intent was to preserve it for their use so that
994 they might not squander it in extravagance or idle expense. For most men, particularly the poorer
995 sort, soon spend whatever they can get. A reserve of this kind therefore is evidently of the greatest
996 service to the soldiers themselves; since they are maintained at the public expense, their military
997 stock by this method is continually increasing. The soldier who knows all his fortune is deposited at
998 his colors, entertains no thoughts of desertion, conceives a greater affection for them and fights
999 with greater intrepidity in their defense. He is also prompted thereto by interest, the most
1000 prevailing consideration among men. This money was contained in ten bags, one for each cohort.
1001 There was an eleventh bag also for a small contribution from the whole legion, as a common fund
1002 to defray the expense of burial of any of their deceased comrades. These collections were kept in
1003 baskets in the custody of the ensigns, chosen for their integrity and capacity, and answerable for
1004 the trust and obliged to account with every man for his own proportion.

1005 **PROMOTION IN THE LEGION**

1006 Heaven certainly inspired the Romans with the organization of the legion, so superior does it seem
1007 to human invention. Such is the arrangement and disposition of the ten cohorts that compose it, as
1008 to appear one perfect body and form one complete whole. A soldier, as he advances in rank,
1009 proceeds as it were by rotation through the different degrees of the several cohorts in such a

1010 manner that one who is promoted passes from the first cohort to the tenth, and returns again
1011 regularly through all the others with a continual increase of rank and pay to the first. Thus the
1012 centurion of the primiple, after having commanded in the different ranks of every cohort, attains
1013 that great dignity in the first with infinite advantages from the whole legion. The chief praefect of
1014 the Praetorian Guards rises by the same method of rotation to that lucrative and honorable rank.
1015 Thus the legionary horse contract an affection for the foot of their own cohorts, notwithstanding
1016 the natural antipathy existing between the two corps. And this connection establishes a reciprocal
1017 attachment and union between all the cohorts and the cavalry and infantry of the legion.

1018 **LEGIONARY MUSIC**

1019 The music of the legion consists of trumpets, cornets and buccinae. The trumpet sounds the charge
1020 and the retreat. The cornets are used only to regulate the motions of the colors; the trumpets
1021 serve when the soldiers are ordered out to any work without the colors; but in time of action, the
1022 trumpets and cornets sound together. The classicum, which is a particular sound of the buccina or
1023 horn, is appropriated to the commander-in-chief and is used in the presence of the general, or at
1024 the execution of a soldier, as a mark of its being done by his authority. The ordinary guards and
1025 outposts are always mounted and relieved by the sound of trumpet, which also directs the motions
1026 of the soldiers on working parties and on field days. The cornets sound whenever the colors are to
1027 be struck or planted. These rules must be punctually observed in all exercises and reviews so that
1028 the soldiers may be ready to obey them in action without hesitation according to the general's
1029 orders either to charge or halt, to pursue the enemy or to retire. For reason will convince us that
1030 what is necessary to be performed in the heat of action should constantly be practiced in the
1031 leisure of peace.

1032 **THE DRILLING OF THE TROOPS**

1033 The organization of the legion being thus explained, let us return to the drills. The younger soldiers
1034 and recruits went through their drills of every kind every morning and afternoon and the veterans
1035 and most expert regularly once a day. Length of service or age alone will never form a military
1036 man, for after serving many years an undisciplined soldier is still a novice in his profession. Not
1037 only those under the masters at arms, but all the soldiers in general, were formerly trained
1038 incessantly in those drills which now are only exhibited as shows in the circus for particular
1039 solemnities. By practice only can be acquired agility of body and the skill requisite to engage an
1040 enemy with advantage, especially in close fight. But the most essential point of all is to teach
1041 soldiers to keep their ranks and never abandon their colors in the most difficult evolutions. Men
1042 thus trained are never at a loss amidst the greatest confusion of numbers.

1043 The recruits likewise are to be exercised with wooden swords at the post, to be taught to attack
1044 this imaginary antagonist on all sides and to aim at the sides, feet or head, both with the point and
1045 edge of the sword. They must be instructed how to spring forward to give the blow, to rise with a
1046 bound above the shield and then to sink down and shelter themselves under cover of it, and how to
1047 advance and retire. They must also throw their javelins at the post from a considerable distance in
1048 order to acquire a good aim and strengthen the arm.

1049 The archers and slingers set up bundles of twigs or straw for marks, and generally strike them with
1050 arrows and with stones from the fustiabus at the distance of six hundred feet. They acquired
1051 coolness and exactness in action from familiar custom and exercise in the field. The slingers should
1052 be taught to whirl the sling but once about the head before they cast the stone. Formerly all
1053 soldiers were trained to the practice of throwing stones of a pound weight with the hand, as this
1054 was thought a readier method since it did not require a sling. The use of the common missile
1055 weapons and loaded javelins was another part of the drill strictly attended to.

1056 To continue this drill without interruption during the winter, they erected for the cavalry porticos or
1057 riding halls covered with tiles or shingles, and if they were not to be procured, with reeds, rushes
1058 or thatch. Large open halls were likewise constructed in the same manner for the use of the
1059 infantry. By these means the troops were provided with places of drill sheltered from bad weather.
1060 But even in winter, if it did not rain or snow, they were obliged to perform their drills in the field,
1061 lest an intermission of discipline should affect both the courage and constitution of the soldier. In
1062 short, both legionary and auxiliary troops should continually be drilled in cutting wood, carrying
1063 burdens, passing ditches, swimming in the sea or in rivers, marching in the full step and even

1064 running with their arms and baggage, so that, inured to labor in peace, they may find no difficulty
1065 in war. For, as the well trained soldier is eager for action, so does the untaught fear it. In war
1066 discipline is superior to strength; but if that discipline is neglected, there is no longer any difference
1067 between the soldier and the peasant. The old maxim is certain that the very essence of an art
1068 consists in constant practice.

1069 **MACHINES AND TOOLS OF THE LEGION**

1070 The legion owes its success to its arms and machines, as well as to the number and bravery of its
1071 soldiers. In the first place every century has a balista mounted on a carriage drawn by mules and
1072 served by a mess, that is by ten men from the century to which it belongs. The larger these
1073 engines are, the greater distance they carry and with the greater force. They are used not only to
1074 defend the entrenchments of camps, but are also placed in the field in the rear of the heavy armed
1075 infantry. And such is the violence with which they throw the darts that neither the cuirasses of the
1076 horse nor shields of the foot can resist them. The number of these engines in a legion is fiftyfive.
1077 Besides these are ten onagri, one for each cohort; they are drawn ready armed on carriages by
1078 oxen; in case of an attack, they defend the works of the camp by throwing stones as the balistae
1079 do darts.

1080 The legion carries with it a number of small boats, each hollowed out of a single piece of timber,
1081 with long cables and sometimes iron chains to fasten them together. These boats, joined and
1082 covered with planks, serve as bridges over unfordable rivers, on which both cavalry and infantry
1083 pass without danger. The legion is provided with iron hooks, called wolves, and iron scythes fixed
1084 to the ends of long poles; and with forks, spades, shovels, pickaxes, wheelbarrows and baskets for
1085 digging and transporting earth; together with hatchets, axes and saws for cutting wood. Besides
1086 which, a train of workmen attend on it furnished with all instruments necessary for the construction
1087 of tortoises, musculi, rams, vines, moving towers and other machines for the attack of places. As
1088 the enumeration of all the particulars of this sort would be too tedious, I shall only observe that the
1089 legion should carry with it wherever it moves, whatever is necessary for every kind of service so
1090 that the encampments may have all the strength and conveniences of a fortified city.

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1108 **Preface to Book III**

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1110 **To the Emperor Valentinian**

1111 The Athenians and Lacedaemonians were masters of Greece before the Macedonians, as history
1112 informs us. The Athenians excelled not only in war but in other arts and sciences. The
1113 Lacedaemonians made war their chief study. They are affirmed to be the first who reasoned on the
1114 events of battles and committed their observations thereon to writing with such success as to
1115 reduce the military art, before considered as totally dependent on courage or fortune, to certain
1116 rules and fixed principles. As a consequence they established schools of tactics for the instruction
1117 of youth in all the maneuvers of war. How worthy of admiration are these people for particularly
1118 applying themselves to the study of an art, without which no other art can possibly exist. The
1119 Romans followed their example, and both practiced their institutions in their armies and preserved

1120 them in their writings. These are the maxims and instructions dispersed through the works of
1121 different authors, which Your Majesty has ordered me to abridge, since the perusal of the whole
1122 would be too tedious, and the authority of only a part unsatisfactory. The effect of the
1123 Lacedaemonian skill in dispositions for general actions appears evidently in the single instance of
1124 Xantippus, who assisted the Carthaginians after the repeated ruin of their armies. And merely
1125 superior skill and conduct defeated Attilius Regulus at the head of a Roman army, till that time
1126 always victorious. Xantippus took him prisoner and thus terminated the war by a single action.
1127 Hannibal, also, before he set out on his expedition into Italy, chose a Lacedaemonian for his
1128 counsellor in military operations; and by his advice, though inferior to the Romans both in number
1129 and strength, overthrew so many consuls and such mighty legions. He, therefore, who desires
1130 peace, should prepare for war. He who aspires to victory, should spare no pains to form his
1131 soldiers. And he who hopes for success, should fight on principle, not chance. No one dares to
1132 offend or insult a power of known superiority in action.

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Book III: Dispositions for Action

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THE NUMBER WHICH SHOULD COMPOSE AN ARMY

1184 The first book treats of the choice and exercises of new levies; the second explains the
1185 establishment of the legion and the method of discipline; and the third contains the dispositions for
1186 action. By this methodical progression, the following instructions on general actions and means of
1187 victory will be better understood and of greater use. By an army is meant a number of troops,
1188 legions and auxiliaries, cavalry and infantry, assembled to make war. This number is limited by
1189 judges of the profession. The defeats of Xerxes, Darius, Mithridates and other monarchs who
1190 brought innumerable multitudes into the field, plainly show that the destruction of such prodigious
1191 armies is owing more to their own numbers than to the bravery of their enemies. An army too
1192 numerous is subject to many dangers and inconveniences. Its bulk makes it slow and unwieldy in
1193 its motions; and as it is obliged to march in columns of great length, it is exposed to the risk of
1194 being continually harassed and insulted by inconsiderable parties of the enemy. The incumbrance
1195 of the baggage is often an occasion of its being surprised in its passage through difficult places or
1196 over rivers. The difficulty of providing forage for such numbers of horses and other beasts of
1197 burden is very great. Besides, scarcity of provisions, which is to be carefully guarded against in all
1198 expeditions, soon ruins such large armies where the consumption is so prodigious, that
1199 notwithstanding the greatest care in filling the magazines they must begin to fail in a short time.
1200 And sometimes they unavoidably will be distressed for want of water. But, if unfortunately this
1201 immense army should be defeated, the numbers lost must necessarily be very great, and the
1202 remainder, who save themselves by flight, too much dispirited to be brought again to action.

1203 The ancients, taught by experience, preferred discipline to numbers. In wars of lesser importance
1204 they thought one legion with auxiliaries, that is, ten thousand foot and two thousand horse,
1205 sufficient. And they often gave the command to a praeter as to a general of the second rank. When
1206 the preparations of the enemy were formidable, they sent a general of consular dignity with twenty
1207 thousand foot and four thousand horse. In our times this command was given to a count of the
1208 first order. But when there happened any dangerous insurrection supported by infinite multitudes
1209 of fierce and barbarous nations, on such emergencies they took the field with two armies under
1210 two consuls, who were charged, both singly and jointly, to take care to preserve the Republic from
1211 danger. In short, by this management, the Romans, almost continually engaged in war with
1212 different nations in different parts of the world, found themselves able to oppose them in every
1213 quarter. The excellence of their discipline made their small armies sufficient to encounter all their
1214 enemies with success. But it was an invariable rule in their armies that the number of allies or
1215 auxiliaries should never exceed that of the Roman citizens.

MEANS OF PRESERVING IT IN HEALTH

1216
1217 The next article is of the greatest importance: the means of preserving the health of the troops.
1218 This depends on the choice of situation and water, on the season of the year, medicine, and
1219 exercise. As to the situation, the army should never continue in the neighborhood of unwholesome
1220 marshes any length of time, or on dry plains or eminences without some sort of shade or shelter.
1221 In the summer, the troops should never encamp without tents. And their marches, in that season
1222 of the year when the heat is excessive, should begin by break of day so that they may arrive at the
1223 place of destination in good time. Otherwise they will contract diseases from the heat of the
1224 weather and the fatigue of the march. In severe winter they should never march in the night in
1225 frost and snow, or be exposed to want of wood or clothes. A soldier, starved with cold, can neither
1226 be healthy nor fit for service. The water must be wholesome and not marshy. Bad water is a kind
1227 of poison and the cause of epidemic distempers.

1228 It is the duty of the officers of the legion, of the tribunes, and even of the commander-in-chief
1229 himself, to take care that the sick soldiers are supplied with proper diet and diligently attended by
1230 the physicians. For little can be expected from men who have both the enemy and diseases to
1231 struggle with. However, the best judges of the service have always been of the opinion that daily
1232 practice of the military exercises is much more efficacious towards the health of an army than all
1233 the art of medicine. For this reason they exercised their infantry without intermission. If it rained or
1234 snowed, they performed under cover; and in fine weather, in the field. They also were assiduous in
1235 exercising their cavalry, not only in plains, but also on uneven ground, broken and cut with ditches.

1236 The horses as well as the men were thus trained, both on the above mentioned account and to
1237 prepare them for action. Hence we may perceive the importance and necessity of a strict
1238 observance of the military exercises in an army, since health in the camp and victory in the field
1239 depend on them. If a numerous army continues long in one place in the summer or in the autumn,
1240 the waters become corrupt and the air infected. Malignant and fatal distempers proceed from this
1241 and can be avoided only by frequent changes of encampments.

1242 **CARE TO PROVIDE FORAGE AND PROVISIONS**

1243 Famine makes greater havoc in an army than the enemy, and is more terrible than the sword.
1244 Time and opportunity may help to retrieve other misfortunes, but where forage and provisions
1245 have not been carefully provided, the evil is without remedy. The main and principal point in war is
1246 to secure plenty of provisions and to destroy the enemy by famine. An exact calculation must
1247 therefore be made before the commencement of the war as to the number of troops and the
1248 expenses incident thereto, so that the provinces may in plenty of time furnish the forage, corn, and
1249 all other kinds of provisions demanded of them to be transported. They must be in more than
1250 sufficient quantity, and gathered into the strongest and most convenient cities before the opening
1251 of the campaign. If the provinces cannot raise their quotas in kind, they must commute for them in
1252 money to be employed in procuring all things requisite for the service. For the possessions of the
1253 subjects cannot be kept secure otherwise than by the defense of arms.

1254 These precautions often become doubly necessary as a siege is sometimes protracted beyond
1255 expectation, the besiegers resolving to suffer themselves all the inconveniences of want sooner
1256 than raise the siege, if they have any hopes of reducing the place by famine. Edicts should be
1257 issued out requiring the country people to convey their cattle, grain, wine and all kinds of
1258 provisions that may be of service to the enemy, into garrisoned fortresses or into the safest cities.
1259 And if they do not comply with the order, proper officers are to appointed to compel them to do it.
1260 The inhabitants of the province must likewise be obliged to retire with their effects into some
1261 fortified place before the irruption of the enemy. The fortifications and all the machines of different
1262 kinds must also be examined and repaired in time. For if you are once surprised by the enemy
1263 before you are in a proper posture of defense, you are thrown into irrecoverable confusion, and you
1264 can no longer draw any assistance from the neighboring places, all communication with them being
1265 cut off. But a faithful management of the magazines and a frugal distribution of the provisions,
1266 with proper precautions taken at first, will insure sufficient plenty. When provisions once begin to
1267 fail, parsimony is ill-timed and comes too late.

1268 On difficult expeditions the ancients distributed the provisions at a fixed allowance to each man
1269 without distinction of rank; and when the emergency was past, the government accounted for the
1270 full proportions. The troops should never want wood and forage in winter or water in summer. They
1271 should have corn, wine, vinegar, and even salt, in plenty at all times. Cities and fortresses are
1272 garrisoned by such men as are least fit for the service of the field. They are provided with all sorts
1273 of arms, arrows, fustibali, slings, stones, onagri and balistae for their defense. Great caution is
1274 requisite that the unsuspecting simplicity of the inhabitants be not imposed on by the treachery or
1275 perjury of the enemy, for pretended conferences and deceitful appearance of truces have often
1276 been more fatal than force. By observing the foregoing precautions, the besieged may have it in
1277 their power to ruin the enemy by famine, if he keeps his troops together, and if he divides them,
1278 by frequent sallies and surprises.

1279 **METHODS TO PREVENT MUTINY IN AN ARMY**

1280 An army drawn together from different parts sometimes is disposed to mutiny. And the troops,
1281 though not inclined to fight, pretend to be angry at not being led against the enemy. Such seditious
1282 dispositions principally show themselves in those who have lived in their quarters in idleness and
1283 effeminacy. These men, unaccustomed to the necessary fatigue of the field, are disgusted at its
1284 severity. Their ignorance of discipline makes them afraid of action and inspires them with
1285 insolence.

1286 There are several remedies for this evil. While the troops are yet separated and each corps
1287 continues in its respective quarters, let the tribunes, their lieutenants and the officers in genera4
1288 make it their business to keep up so strict a discipline as to leave them no room to harbor any
1289 thoughts but of submission and obedience. Let them be constantly employed either in field days or

1290 in the inspection of their arms. They should not be allowed to be absent on furlough. They should
1291 be frequently called by roll and trained to be exact in the observance of every signal. Let them be
1292 exercised in the use of the bow, in throwing missile weapons and stones, both with the hand and
1293 sling, and with the wooden sword at the post; let all this be continually repeated and let them be
1294 often kept under arms till they are tired. Let them be exercised in running and leaping to facilitate
1295 the passing of ditches. And if their quarters are near the sea or a river, let them all, without
1296 exception, be obliged in the summer to have the frequent practice of swimming. Let them be
1297 accustomed to march through thickets, inclosures and broken grounds, to fell trees and cut out
1298 timber, to break ground and to defend a post against their comrades who are to endeavor to
1299 dispossess them; and in the encounter each party should use their shields to dislodge and bear
1300 down their antagonists. All the different kinds of troops thus trained and exercised in their quarters
1301 will find themselves inspired with emulation for glory and eagerness for action when they come to
1302 take the field. In short, a soldier who has proper confidence in his own skill and strength,
1303 entertains no thought of mutiny.

1304 A general should be attentive to discover the turbulent and seditious soldiers in the army, legions
1305 or auxiliaries, cavalry or infantry. He should endeavor to procure his intelligence not from
1306 informers, but from the tribunes, their lieutenants and other officers of undoubted veracity. It
1307 would then be prudent in him to separate them from the rest under pretence of some service
1308 agreeable to them, or detach them to garrison cities or castles, but with such address that though
1309 he wants to get rid of them, they may think themselves employed by preference and favor. A
1310 multitude never broke out into open sedition at once and with unanimous consent. They are
1311 prepared and excited by some few mutineers, who hope to secure impunity for their crimes by the
1312 number of their associates. But if the height of the mutiny requires violent remedies, it will be most
1313 advisable, after the manner of the ancients, to punish the ring-leaders only in order that, though
1314 few suffer, all may be terrified by the example. But it is much more to the credit of a general to
1315 form his troops to submission and obedience by habit and discipline than to be obliged to force
1316 them to their duty by the terror of punishment.

1317 **MARCHES IN THE NEIGHBORHOOD OF THE ENEMY**

1318 It is asserted by those who have made the profession their study that an army is exposed to more
1319 danger on marches than in battles. In an engagement the men are properly armed, they see their
1320 enemies before them and come prepared to fight. But on a march the soldier is less on his guard,
1321 has not his arms always ready and is thrown into disorder by a sudden attack or ambushade. A
1322 general, therefore, cannot be too careful and diligent in taking necessary precautions to prevent a
1323 surprise on the march and in making proper dispositions to repulse the enemy, in case of such
1324 accident, without loss.

1325 In the first place, he should have an exact description of the country that is. the seat of war, in
1326 which the distances of places specified by the number of miles, the nature of the roads, the
1327 shortest routes, by-roads, mountains and rivers, should be correctly inserted. We are told that the
1328 greatest generals have carried their precautions on this head so far that, not satisfied with the
1329 simple description of the country wherein they were engaged, they caused plans to be taken of it
1330 on the spot, that they might regulate their marches by the eye with greater safety. A general
1331 should also inform himself of all these particulars from persons of sense and reputation well
1332 acquainted with the country by examining them separately at first, and then comparing their
1333 accounts in order to come at the truth with certainty.

1334 If any difficulty arises about the choice of roads, he should procure proper and skillful guides. He
1335 should put them under a guard and spare neither promises nor threat to induce them to be faithful.
1336 They will acquit themselves well when they know it is impossible to escape and are certain of being
1337 rewarded for their fidelity or punished for their perfidy. He must be sure of their capacity and
1338 experience, that the whole army be not brought into danger by the errors of two or three persons.
1339 For sometimes the common sort of people imagine they know what they really do not, and through
1340 ignorance promise more than they can perform.

1341 But of all precautions the most important is to keep entirely secret which way or by what route the
1342 army is to march. For the security of an expedition depends on the concealment of all motions from
1343 the enemy. The figure of the Minotaur was anciently among the legionary ensigns, signifying that
1344 this monster, according to the fable, was concealed in the most secret recesses and windings of the

1345 labyrinth, just as the designs of a general should always be impenetrable. When the enemy has no
1346 intimation of a march, it is made with security; but as sometimes the scouts either suspect or
1347 discover the decampment, or traitors or deserters give intelligence thereof, it will be proper to
1348 mention the method of acting in case of an attack on the march.

1349 The general, before he puts his troops in motion, should send out detachments of trusty and
1350 experienced soldiers well mounted, to reconnoiter the places through which he is to march, in
1351 front, in rear, and on the right and left, lest he should fall into ambuscades. The night is safer and
1352 more advantageous for your spies to do their business in than day, for if they are taken prisoners,
1353 you have, as it were, betrayed yourself. After this, the cavalry should march off first, then the
1354 infantry; the baggage, bat horses, servants and carriages follow in the center; and part of the best
1355 cavalry and infantry come in the rear, since it is oftener attacked on a march than the front. The
1356 flanks of the baggage, exposed to frequent ambuscades, must also be covered with a sufficient
1357 guard to secure them. But above all, the part where the enemy is most expected must be
1358 reinforced with some of the best cavalry, light infantry and foot archers.

1359 If surrounded on all sides by the enemy, you must make dispositions to receive them wherever
1360 they come, and the soldiers should be cautioned beforehand to keep their arms in their hands, and
1361 to be ready in order to prevent the bad effects of a sudden attack. Men are frightened and thrown
1362 into disorder by sudden accidents and surprises of no consequence when foreseen. The ancients
1363 were very careful that the servants or followers of the army, if wounded or frightened by the noise
1364 of the action, might not disorder the troops while engaged, and also to prevent their either
1365 straggling or crowding one another too much, which might incommode their own men and give
1366 advantage to the enemy. They ranged the baggage, therefore, in the same manner as the regular
1367 troops under particular ensigns. They selected from among the servants the most proper and
1368 experienced and gave them the command of a number of servants and boys, not exceeding two
1369 hundred, and their ensigns directed them where to assemble the baggage. Proper intervals should
1370 always be kept between the baggage and the troops, that the latter may not be embarrassed for
1371 want of room in case of an attack during the march. The manner and disposition of defense must
1372 be varied according to the difference of ground. In an open country you are more liable to be
1373 attacked by horse than foot. But in a woody, mountainous or marshy situation, the danger to be
1374 apprehended is from foot. Some of the divisions being apt through negligence to move too fast,
1375 and others too slow, great care is to be taken to prevent the army from being broken or from
1376 running into too great a length, as the enemy would instantly take advantage of the neglect and
1377 penetrate without difficulty.

1378 The tribunes, their lieutenants or the masters at arms of most experience, must therefore be
1379 posted at proper distances, in order to halt those who advance too fast and quicken such as move
1380 too slow. The men at too great a distance in the front, on the appearance of an enemy, are more
1381 disposed to fly than to join their comrades. And those too far behind, destitute of assistance, fall a
1382 sacrifice to the enemy and their own despair. The enemy, it may be concluded, will either plant
1383 ambuscades or make his attack by open force, according to the advantage of the ground.
1384 Circumspection in examining every place will be a security against concealed danger; and an
1385 ambuscade, if discovered and promptly surrounded, will return the intended mischief with interest.

1386 If the enemy prepare to fall upon you by open force in a mountainous country, detachments must
1387 be sent forward to occupy the highest eminences, so that on their arrival they may not dare to
1388 attack you under such a disadvantage of ground, your troops being posted so much above theIr
1389 and presenting a front ready for their reception. It is better to send men forward with hatchets and
1390 other tools in order to open ways that are narrow but safe, without regard to the labor, rather than
1391 to run any risk in the finest roads. It is necessary to be well acquainted whether the enemy usually
1392 make their attempts in the night, at break of day or in the hours of refreshment or rest; and by
1393 knowledge of their customs to guard against what we find their general practice. We must also
1394 inform ourselves whether they are strongest in infantry or cavalry; whether their cavalry is chiefly
1395 armed with lances or with bows; and whether their principal strength consists in their numbers or
1396 the excellence of their arms. All of this will enable us to take the most proper measures to distress
1397 them and for our advantage. When we have a design in view, we must consider whether it will be
1398 most advisable to begin the march by day or by night; we must calculate the distance of the places
1399 we want to reach; and take such precautions that in summer the troops may not suffer for want of
1400 water on their march, nor be obstructed in winter by impassable morasses or torrents, as these

1401 would expose the army to great danger before it could arrive at the place of its destination. As it
1402 highly concerns us to guard against these inconveniences with prudence, so it would be inexcusable
1403 not to take advantage of an enemy that fell into them through ignorance or negligence. Our spies
1404 should be constantly abroad; we should spare no pains in tampering with their men, and give all
1405 manner of encouragement to deserters. By these means we may get intelligence of their present or
1406 future designs. And we should constantly keep in readiness some detachments of cavalry and light
1407 infantry, to fall upon them when they least expect it, either on the march, or when foraging or
1408 marauding.

1409 **PASSAGES OF RIVERS**

1410 The passages of rivers are very dangerous without great precaution. In crossing broad or rapid
1411 streams, the baggage, servants, and sometimes the most indolent soldiers are in danger of being
1412 lost. Having first sounded the ford, two lines of the best mounted cavalry are ranged at a
1413 convenient distance entirely across the river, so that the infantry and baggage may pass between
1414 them. The line above the ford breaks the violence of the stream, and the line below recovers and
1415 transports the men carried away by the current. When the river is too deep to be forded either by
1416 the cavalry or infantry, the water is drawn off, if it runs in a plain, by cutting a great number of
1417 trenches, and thus it is passed with ease.

1418 Navigable rivers are passed by means of piles driven into the bottom and floored with planks; or in
1419 a sudden emergency by fastening together a number of empty casks and covering them with
1420 boards. The cavalry, throwing off their accoutrements, make small floats of dry reeds or rushes on
1421 which they lay their rams and cuirasses to preserve them from being wet. They themselves swim
1422 their horses across the river and draw the floats after them by a leather thong.

1423 But the most commodious invention is that of the small boats hollowed out of one piece of timber
1424 and very light both by their make and the quality of the wood. The army always has a number of
1425 these boats upon carriages, together with a sufficient quantity of planks and iron nails. Thus with
1426 the help of cables to lash the boats together, a bridge is instantly constructed, which for the time
1427 has the solidity of a bridge of stone.

1428 As the enemy generally endeavor to fall upon an army at the passage of a river either by surprise
1429 or ambuscade, it is necessary to secure both sides thereof by strong detachments so that the
1430 troops may not be attacked and defeated while separated by the channel of the river. But it is still
1431 safer to palisade both the posts, since this will enable you to sustain any attempt without much
1432 loss. If the bridge is wanted, not only for the present transportation of the troops but also for their
1433 return and for convoys, it will be proper to throw up works with large ditches to cover each head of
1434 the bridge, with a sufficient number of men to defend them as long as the circumstances of affairs
1435 require.

1436 **RULES FOR ENCAMPING AN ARMY**

1437 An army on the march cannot expect always to find walled cities for quarters, and it is very
1438 imprudent and dangerous to encamp in a straggling manner without some sort of entrenchment. It
1439 is an easy matter to surprise troops while refreshing themselves or dispersed in the different
1440 occupations of the service. The darkness of night, the necessity of sleep and the dispersion of the
1441 horses at pasture afford opportunities of surprise. A good situation for a camp is not sufficient; we
1442 must choose the very best that can be found lest, having failed to occupy a more advantageous
1443 post the enemy should get possession of it to our great detriment.

1444 An army should not encamp in summer near bad waters or far from good ones, nor in winter in a
1445 situation without plenty of forage and wood. The camp should not be liable to sudden inundations.
1446 The avenues should not be too steep and narrow lest, if invested, the troops should find it difficult
1447 to make their retreat; nor should it be commanded by any eminences from which it may be
1448 annoyed by the enemy's weapons. After these precautions, the camp is formed square, round,
1449 triangular or oblong, according to the nature of the ground. For the form of a camp does not
1450 constitute its goodness. Those camps, however, are thought best where the length is one third
1451 more than the depth. The dimensions must be exactly computed by the engineers, so that the size
1452 of the camp may be proportioned to the number of troops. A camp which is too confined will not
1453 permit the troops to perform their movements with freedom, and one which is too extensive

1454 divides them too much. There are three methods of entrenching a camp. The first is for the case
1455 when the army is on the march and will continue in the camp for only one night. They then throw
1456 up a slight parapet of turf and plant it with a row of palisades or caltrops* of wood. The sods are
1457 cut with iron instruments. If the earth is held strongly together by the roots of the grass, they are
1458 cut in the form of a brick a foot and one half high, a foot broad and a foot and one half long. If the
1459 earth is so loose that the turf cannot be cut in this form, they run a slight trench round the camp,
1460 five feet broad and three feet deep. The earth taken from the trench forms a parapet on the inside
1461 and this secures the army from danger. This is the second method.

1462 But permanent camps, either for summer or winter, in the neighborhood of an enemy, are fortified
1463 with greater care and regularity. After the ground is marked out by the proper officers, each
1464 century receives a certain number of feet to entrench. They then range their shields and baggage
1465 in a circle about their own colors and, with, out other arms than their swords, open a trench nine,
1466 eleven or thirteen feet broad. Or, if they are under great apprehensions of the enemy, they enlarge
1467 it to seventeen feet (it being a general rule to observe odd numbers). Within this they construct a
1468 rampart with fascines or branches of trees well fastened together with pickets, so that the earth
1469 may be better supported. Upon this rampart they raise a parapet with battlements as in the
1470 fortifications of a city. The centurions measure the work with rods ten feet long and examine
1471 whether every one has properly completed the proportion assigned to him. The tribunes likewise
1472 inspect the work and should not leave the place till the whole is finished. And that the workmen
1473 may not be suddenly interrupted by the enemy, all the cavalry and that part of the infantry
1474 exempted by the privilege of their rank from working, remain in order of battle before the
1475 entrenchment to be ready to repel any assault.

1476 The first thing to be done after entrenching the camp, is to plant the ensigns, held by the soldiers
1477 in the highest veneration and respect, in their proper places. After this the praetorium is prepared
1478 for the general and his lieutenants, and the tents pitched for the tribunes, who have soldiers
1479 particularly appointed for that service and to fetch their water, wood, and forage. Then the legions
1480 and auxiliaries, cavalry and infantry, have the ground distributed to them to pitch their tents
1481 according to the rank of the several corps. Four foot-soldiers of each century and four troopers of
1482 each troop are on guard every night. As it seemed impossible for a sentinel to remain a whole night
1483 on his post, the watches were divided by the hourglass into four parts, that each man might stand
1484 only three hours. All guards are mounted by the sound of trumpet and relieved by the sound of
1485 cornet. The tribunes choose proper and trusty men to visit the different posts and report to them
1486 whatever they find amiss. This is now a military office and the persons appointed to it are called
1487 officers of the rounds.

1488 The cavalry furnish the grand guards at night and the outposts by day. They are relieved every
1489 morning and afternoon because of the fatigue of the men and horses. It is particularly incumbent
1490 upon the general to provide for the protection of the pastures and of the convoys of grain and
1491 other provisions either in camp or garrison, and to secure wood, water and forage against the
1492 incursions of the enemy. This can only be effected by posting detachments advantageously in the
1493 cines or walled castles on the roads along which the convoys advance. And if no ancient
1494 fortifications are to be met with, small forts must be built in proper situations, surrounded with
1495 large ditches, for the reception of detachments of horse and foot, so that the convoys will be
1496 effectually protected. For an enemy will hardly venture far into a country where he knows his
1497 adversary's troops are so disposed as to be ready to encompass him on all sides.

1498 **MOTIVES FOR THE PLAN OF OPERATIONS OF A CAMPAIGN**

1499 Readers of this military abridgement will perhaps be impatient for instructions relative to general
1500 engagements. But they should consider that a battle is commonly decided in two or three hours,
1501 after which no further hopes are left for the worsted army. Every plan, therefore, is to be
1502 considered, every expedient tried and every method taken before matters are brought to this last
1503 extremity. Good officers decline general engagements where the danger is common, and prefer the
1504 employment of stratagem and finesse to destroy the enemy as much as possible in detail and
1505 intimidate them without exposing our own forces.

1506 I shall insert some necessary instructions on this head collected from the ancients. It is the duty
1507 and interest of the general frequently to assemble the most prudent and experienced officers of the
1508 different corps of the army and consult with them on the state both of his own and the enemy's

1509 forces. All overconfidence, as most pernicious in its consequences, must be banished from the
1510 deliberations. He must examine which has the superiority in numbers, whether his or the
1511 adversary's troops are best armed, which are in the best condition, best disciplined and most
1512 resolute in emergencies. The state of the cavalry of both armies must be inquired into, but more
1513 especially that of the infantry, for the main strength of an army consists of the latter. With respect
1514 to the cavalry, he must endeavor to find out in which are the greatest numbers of archers or of
1515 troopers armed with lances, which has the most cuirassiers and which the best horses. Lastly he
1516 must consider the field of battle and to judge whether the ground is more advantageous for him or
1517 his enemy. If strongest in cavalry, we should prefer plains and open ground; if superior in infantry,
1518 we should choose a situation full of enclosures, ditches, morasses and woods, and sometimes
1519 mountainous. Plenty or scarcity in either army are considerations of no small importance, for
1520 famine, according to the common proverb, is an internal enemy that makes more havoc than the
1521 sword. But the most material article is to determine whether it is most proper to temporize or to
1522 bring the affair to a speedy decision by action. The enemy sometimes expect an expedition will
1523 soon be over; and if it is protracted to any length, his troops are either consumed by want,
1524 induced to return home by the desire of seeing their families or, having done nothing considerable
1525 in the field, disperse themselves from despair of success. Thus numbers, tired out with fatigue and
1526 disgusted with the service, desert, others betray them and many surrender themselves. Fidelity is
1527 seldom found in troops disheartened by misfortunes. And in such case an army which was
1528 numerous on taking the field insensibly dwindles away to nothing.

1529 It is essential to know the character of the enemy and of their principal officers-whether they be.
1530 rash or cautious, enterprising or timid, whether they fight on principle or from chance and whether
1531 the nations they have been engaged with were brave or cowardly.

1532 We must know how far to depend upon the fidelity and strength of auxiliaries, how the enemy's
1533 troops and our own are affected and which appear most confident of success, a consideration of
1534 great effect in raising or depressing the courage of an army. A harangue from the general,
1535 especially if he seems under no apprehension himself, may reanimate the soldiers if dejected. Their
1536 spirits revive if any considerable advantage is gained either by stratagem or otherwise, if the
1537 fortune of the enemy begins to change or if you can contrive to beat some of their weak or poorly-
1538 armed detachments.

1539 But you must by no means venture to lead an irresolute or diffident army to a general
1540 engagement. The difference is great whether your troops are raw or veterans, whether inured to
1541 war by recent service or for some years unemployed. For soldiers unused to fighting for a length of
1542 time must be considered in the same light as recruits. As soon as the legions, auxiliaries and
1543 cavalry are assembled from their several quarters, it is the duty of a good general to have every
1544 corps instructed separately in every part of the drill by tribunes of known capacity chosen for that
1545 purpose. He should afterwards form them into one body and train them in all the maneuvers of the
1546 line as for a general action. He must frequently drill them himself to try their skill and strength,
1547 and to see whether they perform their evolutions with proper regularity and are sufficiently
1548 attentive to the sound of the trumpets, the motions of the colors and to his own orders and signals.
1549 If deficient in any of these particulars, they must be instructed and exercised till perfect.

1550 But though thoroughly disciplined and complete in their field exercises, in the use of the bow and
1551 javelin, and in the evolutions of the line, it is not advisable to lead them rashly or immediately to
1552 battle. A favorable opportunity must be watched for, and they must first be prepared by frequent
1553 skirmishes and slight encounters. Thus a vigilant and prudent general will carefully weigh in his
1554 council the state of his own forces and of those of the enemy, just as a civil magistrate judging
1555 between two contending parties. If he finds himself in many respects superior to his adversary, he
1556 must by no means defer bringing on an engagement. But if he knows himself inferior, he must
1557 avoid general actions and endeavor to succeed by surprises, ambuscades and stratagems. These,
1558 when skillfully managed by good generals, have often given them the victory over enemies
1559 superior both in numbers and strength.

1560 **HOW TO MANAGE RAW AND UNDISCIPLINED TROOPS**

1561 All arts and trades whatever are brought to perfection by continual practice. How much more
1562 should this maxim, true in inconsiderable matters, be observed in affairs of importance! And how
1563 much superior to all others is the art of war, by which our liberties are preserved, our dignities

1564 perpetuated and the provinces and the whole Empire itself exist. The Lacedaemonians, and after
1565 them the Romans, were so aware of this truth that to this science they sacrificed all others. And
1566 the barbarous nations even at this day think only this art worth attention, believing it includes or
1567 confers everything else. In short, it is indispensably necessary for those engaged in war not only to
1568 instruct them in the means of preserving their own lives, but how to gain the victory over their
1569 enemies.

1570 A commander-in-chief therefore, whose power and dignity are so great and to whose fidelity and
1571 bravery the fortunes of his countrymen, the defense of their cities, the lives of the soldiers, and the
1572 glory of the state, are entrusted, should not only consult the good of the army in general, but
1573 extend his care to every private soldier in it. For when any misfortunes happen to those under his
1574 command, they are considered as public losses and imputed entirely to his misconduct. If therefore
1575 he finds his army composed of raw troops or if they have long been unaccustomed to fighting, he
1576 must carefully study the strength, the spirit, the manners of each particular legion, and of each
1577 body of auxiliaries, cavalry and infantry. He must know, if possible, the name and capacity of every
1578 count, tribune, subaltern and soldier. He must assume the most respectable authority and maintain
1579 it by severity. He must punish all military crimes with the greatest rigor of the laws. He must have
1580 the character of being inexorable towards offenders and endeavor to give public examples thereof
1581 in different places and on different occasions.

1582 Having once firmly established these regulations, he must watch the opportunity when the enemy,
1583 dispersed in search of plunder, think themselves in security, and attack them with detachments of
1584 tried cavalry or infantry, intermingled with young soldiers, or such as are under the military age.
1585 The veterans will acquire fresh experience and the others will be inspired with courage by the
1586 advantages such opportunities will give him. He should form ambuscades with the greatest secrecy
1587 to surprise the enemy at the passages of rivers, in the rugged passes of mountains, in defiles in
1588 woods and when embarrassed by morasses or difficult roads. He should regulate his march so as to
1589 fall upon them while taking their refreshments or sleeping, or at a time when they suspect no
1590 dangers and are dispersed, unarmed and their horses unsaddled. He should continue these kinds of
1591 encounters till his soldiers have imbibed a proper confidence in themselves. For troops that have
1592 never been in action or have not for some time been used to such spectacles, are greatly shocked
1593 at the sight of the wounded and dying; and the impressions of fear they receive dispose them
1594 rather to fly than fight.

1595 If the enemy makes excursions or expeditions, the general should attack him after the fatigue of a
1596 long march, fall upon him unexpectedly, or harass his rear. He should detach parties to endeavor
1597 to carry off by surprise any quarters established at a distance from the hostile army for the
1598 convenience of forage or provisions. For such measures should be pursued at first as can produce
1599 no very bad effects if they should happen to miscarry, but would be of great advantage if attended
1600 with success. A prudent general will also try to sow dissention among his adversaries, for no
1601 nation, though ever so weak in itself can be completely ruined by its enemies unless its fall be
1602 facilitated by its own distraction. In civil dissensions men are so intent on the destruction of their
1603 private enemies that they are entirely regardless of the public safety.

1604 One maxim must be remembered throughout this work: that no one should ever despair of
1605 effecting what has been already performed. It may be said that our troops for many years past
1606 have not even fortified their permanent camps with ditches, ramparts or palisades. The answer is
1607 plain. If those precautions had been taken, our armies would never have suffered by surprises of
1608 the enemy both by day and night. The Persians, after the example of the old Romans, surround
1609 their camps with ditches and, as the ground in their country is generally sandy, they always carry
1610 with them empty bags to fill with the sand taken out of the trenches and raise a parapet by piling
1611 them one on the other. All the barbarous nations range their carriages round them in a circle, a
1612 method which bears some resemblance to a fortified camp. They thus pass their nights secure from
1613 surprise.

1614 Are we afraid of not being able to learn from others what they before have learned from us? At
1615 present all this is to be found in books only, although formerly constantly practiced. Inquiries are
1616 now no longer made about customs that have been so long neglected, because in the midst of
1617 peace, war is looked upon as an object too distant to merit consideration. But former instances will

1618 convince us that the reestablishment of ancient discipline is by no means impossible, although now
1619 so totally lost.

1620 In former ages the art of war, often neglected and forgotten, was as often recovered from books
1621 and reestablished by the authority and attention of our generals. Our armies in Spain, when Scipio
1622 Africanus took the command, were in bad order and had often been beaten under preceding
1623 generals. He soon reformed them by severe discipline and obliged them to undergo the greatest
1624 fatigue in the different military works, reproaching them that since they would not wet their hands
1625 with the blood of their enemies, they should soil them with the mud of the trenches. In short, with
1626 these very troops he afterwards took the city of Numantia and burned it to the ground with such
1627 destruction of its inhabitants that not one escaped. In Africa an army, which under the command of
1628 Albinus had been forced to pass under the yoke, was by Metellus brought into such order and
1629 discipline, by forming it on the ancient model, that they afterwards vanquished those very enemies
1630 who had subjected them to that ignominious treatment. The Cimbri defeated the legions of Caepio,
1631 Manilus and Silanus in Gaul, but Marius collected their shattered remnants and disciplined them so
1632 effectually that he destroyed an innumerable multitude of the Cimbri, Teutones and Ambrones in
1633 one general engagement. Nevertheless it is easier to form young soldiers and inspire them with
1634 proper notions of honor than to reanimate troops who have been once disheartened.

1635 **PREPARATIONS FOR A GENERAL ENGAGEMENT**

1636 Having explained the less considerable branches of the art of war, the order of military affairs
1637 naturally leads us to the general engagement. This is a conjuncture full of uncertainty and fatal to
1638 kingdoms and nations, for in the decision of a pitched battle consists the fulness of victory. This
1639 eventuality above all others requires the exertion of all the abilities of a general, as his good
1640 conduct on such an occasion gains him greater glory, or his dangers expose him to greater danger
1641 and disgrace. This is the moment in which his talents, skill and experience show themselves in
1642 their fullest extent.

1643 Formerly to enable the soldiers to charge with greater vigor, it was customary to order them a
1644 moderate refreshment of food before an engagement, so that their strength might be the better
1645 supported during a long conflict. When the army is to march out of a camp or city in the presence
1646 of their enemies drawn up and ready for action, great precaution must be observed lest they
1647 should be attacked as they defile from the gates and be cut to pieces in detail. Proper measures
1648 must therefore be taken so that the whole army may be clear of the gates and form in order of
1649 battle before the enemy's approach. If they are ready before you can have quitted the place, your
1650 design of marching out must either be deferred till another opportunity or at least dissembled, so
1651 that when they begin to insult you on the supposition that you dare not appear, or think of nothing
1652 but plundering or returning and no longer keep their ranks, you may sally out and fall upon them
1653 while in confusion and surprise. Troops must never be engaged in a general action immediately
1654 after a long march, when the men are fatigued and the horses tired. The strength required for
1655 action is spent in the toil of the march. What can a soldier do who charges when out of breath? The
1656 ancients carefully avoided this inconvenience, but in later times some of our Roman generals, to
1657 say nothing more, have lost their armies by unskillfully neglecting this precaution. Two armies, one
1658 tired and spent, the other fresh and in full vigor, are by no means an equal match.

1659 **THE SENTIMENTS OF THE TROOPS SHOULD BE DETERMINED BEFORE BATTLE**

1660 It is necessary to know the sentiments of the soldiers on the day of an engagement. Their
1661 confidence or apprehensions are easily discovered by their looks, their words, their actions and
1662 their motions. No great dependence is to be placed on the eagerness of young soldiers for action,
1663 for fighting has something agreeable in the idea to those who are strangers to it. On the other
1664 hand, it would be wrong to hazard an engagement, if the old experienced soldiers testify to a
1665 disinclination to fight. A general, however, may encourage and animate his troops by proper
1666 exhortations and harangues, especially if by his account of the approaching action he can persuade
1667 them into the belief of an easy victory. With this view, he should lay before them the cowardice or
1668 unskillfulness of their enemies and remind them of any former advantages they may have gained
1669 over them. He should employ every argument capable of exciting rage, hatred and indignation
1670 against the adversaries in the minds of his soldiers.

1671 It is natural for men in general to be affected with some sensations of fear at the beginning of an
1672 engagement, but there are without doubt some of a more timorous disposition who are disordered
1673 by the very sight of the enemy. To diminish these apprehensions before you venture on action,
1674 draw up your army frequently in order of battle in some safe situation, so that your men may be
1675 accustomed to the sight and appearance of the enemy. When opportunity offers, they should be
1676 sent to fall upon them and endeavor to put them to flight or kill some of their men. Thus they will
1677 become acquainted with their customs, arms and horses. And the objects with which we are once
1678 familiarized are no longer capable of inspiring us with terror.

1679 **CHOICE OF THE FIELD OF BATTLE**

1680 Good generals are acutely aware that victory depends much on the nature of the field of battle.
1681 When you intend therefore to engage, endeavor to draw the chief advantage from your situation.
1682 The highest ground is reckoned the best. Weapons thrown from a height strike with greater force;
1683 and the party above their antagonists can repulse and bear them down with greater impetuosity,
1684 while they who struggle with the ascent have both the ground and the enemy to contend with.
1685 There is, however, this difference with regard to place: if you depend on your foot against the
1686 enemy's horse, you must choose a rough, unequal and mountainous situation. But if, on the
1687 contrary, you expect your cavalry to act with advantage against the enemy's infantry, your ground
1688 must indeed be higher, but plain and open, without any obstructions of woods or morasses.

1689 **ORDER OF BATTLE**

1690 In drawing up an army in order of battle, three things are to be considered: the sun, the dust and
1691 the wind. The sun in your face dazzles the sight: if the wind is against you, it turns aside and
1692 blunts the force of your weapons, while it assists those of your adversary; and the dust driving in
1693 your front fills the eyes of your men and blinds them. Even the most unskillful endeavor to avoid
1694 these inconveniences in the moment of making their dispositions; but a prudent general should
1695 extend his views beyond the present; he should take such measures as not to be incommoded in
1696 the course of the day by different aspects of the sun or by contrary winds which often rise at a
1697 certain hour and might be detrimental during action. Our troops should be so disposed as to have
1698 these inconveniences behind them, while they are directly in the enemy's front.

1699 **PROPER DISTANCES AND INTERVALS**

1700 Having explained the general disposition of the lines, we now come to the distances and
1701 dimensions. One thousand paces contain a single rank of one thousand six hundred and fifty-six
1702 foot soldiers, each man being allowed three feet. Six ranks drawn up on the same extent of ground
1703 will require nine thousand nine hundred and ninety-six men. To form only three ranks of the same
1704 number will take up two thousand paces, but it is much better to increase the number of ranks
1705 than to make your front too extensive. We have before observed the distance between each rank
1706 should be six feet, one foot of which is taken up by the men. Thus if you form a body of ten
1707 thousand men into six ranks they will occupy thirty-six feet. in depth and a thousand paces in
1708 front. By this calculation it is easy to compute the extent of ground required for twenty or thirty
1709 thousand men to form upon. Nor can a general be mistaken when thus he knows the proportion of
1710 ground for any fixed number of men.

1711 But if the field of battle is not spacious enough or your troops are very numerous, you may form
1712 them into nine ranks or even more, for it is more advantageous to engage in close order than to
1713 extend your line too much. An army that takes up too much ground in front and too little in depth,
1714 is quickly penetrated by the enemy's first onset. After this there is no remedy. As to the post of the
1715 different corps in the right or left wing or in the center, it is the general rule to draw them up
1716 according to their respective ranks or to distribute them as circumstances or the dispositions of the
1717 enemy may require.

1718 **DISPOSITION OF THE CAVALRY**

1719 The line of infantry being formed, the cavalry are drawn up in the wings. The heavy horse, that is,
1720 the cuirassiers and troopers armed with lances, should join the infantry. The light cavalry,
1721 consisting of the archers and those who have no cuirasses, should be placed at a greater distance.
1722 The best and heaviest horse are to cover the flanks of the foot, and the light horse are posted as

1723 abovementioned to surround and disorder the enemy's wings. A general should know what part of
1724 his own cavalry is most proper to oppose any particular squadrons or troops of the enemy. For
1725 from some causes not to be accounted for some particular corps fight better against others, and
1726 those who have defeated superior enemies are often overcome by an inferior force.

1727 If your cavalry is not equal to the enemy's it is proper, after the ancient custom, to intermingle it
1728 with light infantry armed with small shields and trained to this kind of service. By observing this
1729 method, even though the flower of the enemy's cavalry should attack you, they will never be able
1730 to cope with this mixed disposition. This was the only resource of the old generals to supply the
1731 defects of their cavalry, and they intermingled the men, used to running and armed for this
1732 purpose with light shields, swords and darts, among the horse, placing one of them between two
1733 troopers.

1734 **RESERVES**

1735 The method of having bodies of reserves in rear of the army, composed of choice infantry and
1736 cavalry, commanded by the supernumerary lieutenant generals, counts and tribunes, is very
1737 judicious and of great consequence towards the gaining of a battle. Some should be posted in rear
1738 of the wings and some near the center, to be ready to fly immediately to the assistance of any part
1739 of the line which is hard pressed, to prevent its being pierced, to supply the vacancies made
1740 therein during the action and thereby to keep up the courage of their fellow soldiers and check the
1741 impetuosity of the enemy. This was an invention of the Lacedaemonians, in which they were
1742 imitated by the Carthaginians. The Romans have since observed it, and indeed no better
1743 disposition can be found.

1744 The line is solely designed to repulse, or if possible, break the enemy. If it is necessary to form the
1745 wedge or the pincers, it must be done by the supernumerary troops stationed in the rear for that
1746 purpose. If the saw is to be formed, it must also be done from the reserves, for if once you begin
1747 to draw off men from the line you throw all into confusion. If any flying platoon of the enemy
1748 should fall upon your wing or any other part of your army, and you have no supernumerary troops
1749 to oppose it or if you pretend to detach either horse or foot from your line for that service by
1750 endeavoring to protect one part, you will expose the other to greater danger. In armies not very
1751 numerous, it is much better to contract the front, and to have strong reserves. In short, you must
1752 have a reserve of good and well-armed infantry near the center to form the wedge and thereby
1753 pierce the enemy's line; and also bodies of cavalry armed with lances and cuirasses, with light
1754 infantry, near the wings, to surround the flanks of the enemy.

1755 **THE POST OF THE GENERAL AND OF THE SECOND AND THIRD IN COMMAND**

1756 The post of the commander-in-chief is generally on the right between the cavalry and infantry. For
1757 from this place he can best direct the motions of the whole army and move elements with the
1758 greatest ease wherever he finds it necessary. It is also the most convenient spot to give his orders
1759 to both horse and foot and to animate them equally by his presence. It is his duty to surround the
1760 enemy's left wing opposed to him with his reserve of horse and light infantry, and attack it in the
1761 flank and rear. The second in command is posted in the center of the infantry to encourage and
1762 support them. A reserve of good and well-armed infantry is near him and under his orders. With
1763 this reserve he either forms the wedge to pierce the enemy's line or, if they form the wedge first,
1764 prepares the pincers for its reception. The post of the third in command is on the left. He should be
1765 a careful and intrepid officer, this part of the army being difficult to manage and defective, as it
1766 were, from its situation in the line. He should therefore have a reserve of good cavalry and active
1767 infantry to enable him always to extend his left in such a manner as to prevent its being
1768 surrounded.

1769 The war shout should not be begun till both armies have joined, for it is a mark of ignorance or
1770 cowardice to give it at a distance. The effect is much greater on the enemy when they find
1771 themselves struck at the same instant with the horror of the noise and the points of the weapons.

1772 You must always endeavor to get the start of your enemy in drawing up in order of battle, as you
1773 will then have it in your power to make your proper dispositions without obstruction. This will
1774 increase the courage of your own troops and intimidate your adversaries. For a superiority of
1775 courage seems to be implied on the side of an army that offers battle, whereas troops begin to be

1776 fearful who see their enemies ready to attack them. You will also secure another great advantage,
1777 that of marching up in order and falling upon them while forming and still in confusion. For part of
1778 the victory consists in throwing the enemy into disorder before you engage them.

1779 **MANEUVERS IN ACTION**

1780 An able general never loses a favorable opportunity of surprising the enemy either when tired on
1781 the march, divided in the passage of a river, embarrassed in morasses, struggling with the
1782 declivities of mountains, when dispersed over the country they think themselves in security or are
1783 sleeping in their quarters. In all these cases the adversaries are surprised and destroyed before
1784 they have time to put themselves on their guard. But if they are too cautious to give you an
1785 opportunity of surprising or ensnaring them, you are then obliged to engage openly and on equal
1786 terms. This at present is foreign to the subject. However military skill is no less necessary in
1787 general actions than in carrying on war by subtlety and stratagem.

1788 Your first care is to secure your left wing from being surrounded by the enemy's numbers or
1789 attacked in flank or rear by flying platoons, a misfortune that often happens. Nor is your right to be
1790 neglected, though less frequently in danger. There is only one remedy for this: to wheel back your
1791 wing and throw it into a circular position. By this evolution your soldiers meet the enemy on the
1792 quarter attacked and defend the rear of their comrades. But your best men should be posted on
1793 the angles of the flanks, since it is against them the enemy make their principal efforts.

1794 There is also a method of resisting the wedge when formed by the enemy. The wedge is a
1795 disposition of a body of infantry widening gradually towards the base and terminating in a point
1796 towards the front. It pierces the enemy's line by a multitude of darts directed to one particular
1797 place. The soldiers call it the swine's head. To oppose this disposition, they make use of another
1798 called the pincers, resembling the letter V, composed of a body of men in close order. It receives
1799 the wedge, inclosing it on both sides, and thereby prevents it from penetrating the line.

1800 The saw is another disposition formed of resolute soldiers drawn up in a straight line advanced into
1801 the front against the enemy, to repair any disorder. The platoon is a body of men separated from
1802 the line, to hover on every side and attack the enemy wherever they find opportunity. And against
1803 this is to be detached a stronger and more numerous platoon.

1804 Above all, a general must never attempt to alter his dispositions or break his order of battle during
1805 the time of action, for such an alteration would immediately occasion disorder and confusion which
1806 the enemy would not fail to improve to their advantage.

1807 **VARIOUS FORMATIONS FOR BATTLE**

1808 An army may be drawn up for a general engagement in seven different formations. The first
1809 formation is an oblong square of a large front, of common use both in ancient and modern times,
1810 although not thought the best by various judges of the service, because an even and level plain of
1811 an extent sufficient to contain its front cannot always be found, and if there should be any
1812 irregularity or hollow in the line, it is often pierced in that part. Besides, an enemy superior in
1813 number may surround either your right or left wing, the consequence of which will be dangerous,
1814 unless you have a reserve ready to advance and sustain his attack. A general should make use of
1815 this disposition only when his forces are better and more numerous than the enemy's, it being
1816 thereby in his power to attack both the flanks and surround them on every side.

1817 The second and best disposition is the oblique. For although your army consists of few troops, yet
1818 good and advantageously posted, it will greatly contribute to your obtaining the victory,
1819 notwithstanding the numbers and bravery of the enemy. It is as follows: as the armies are
1820 marching up to the attack, your left wing must be kept back at such a distance from the enemy's
1821 right as to be out of reach of their darts and arrows. Your right wing must advance obliquely upon
1822 the enemy's left, and begin the engagement. And you must endeavor with your best cavalry and
1823 infantry to surround the wing with which you are engaged, make it give way and fall upon the
1824 enemy in the rear. If they once give ground and the attack is properly seconded, you will
1825 undoubtedly gain the victory, while your left wing, which continued at a distance, will remain
1826 untouched. An army drawn up in this manner bears some resemblance to the letter A or a mason's
1827 level. If the enemy should be beforehand with you in this evolution, recourse must be had to the

1828 supernumerary horse and foot posted as a reserve in the rear, as I mentioned before. They must
1829 be ordered to support your left wing. This will enable you to make a vigorous resistance against the
1830 artifice of the enemy.

1831 The third formation is like the second, but not so good, as it obliges you to begin the attack with
1832 your left wing on the enemy's right. The efforts of soldiers on the left are weak and imperfect from
1833 their exposed and defective situation in the line. I will explain this formation more clearly. Although
1834 your left wing should be much better than your right, yet it must be reinforced with some of the
1835 best horse and foot and ordered to commence the action with the enemy's right in order to
1836 disorder and surround it as expeditiously as possible. And the other part of your army, composed
1837 of the worst troops, should remain at such a distance from the enemy's left as not to be annoyed
1838 by their darts or in danger of being attacked sword in hand. In this oblique formation care must be
1839 taken to prevent the line being penetrated by the wedges of the enemy, and it is to be employed
1840 only when the enemy's right wing is weak and your greatest strength is on your left.

1841 The fourth formation is this: as your army is marching to the attack in order of battle and you
1842 come within four or five hundred paces of the enemy, both your wings must be ordered
1843 unexpectedly to quicken their pace and advance with celerity upon them. When they find
1844 themselves attacked on both wings at the same time, the sudden surprise may so disconcert them
1845 as to give you an easy victory. But although this method, if your troops are very resolute and
1846 expert, may ruin the enemy at once, yet it is hazardous. The general who attempts it is obliged to
1847 abandon and expose his center and to divide his army into three parts. If the enemy are not routed
1848 at the first charge, they have a fair opportunity of attacking the wings which are separated from
1849 each other and the center which is destitute of assistance.

1850 The fifth formation resembles the fourth but with this addition: the light infantry and the archers
1851 are formed before the center to cover it from the attempts of the enemy. With this precaution the
1852 general may safely follow the above mentioned method and attack the enemy's left wing with his
1853 right, and their right with his left. If he puts them to flight, he gains an immediate victory, and if he
1854 fails of success his center is in no danger, being protected by the light infantry and archers.

1855 The sixth formation is very good and almost like the second. It is used when the general cannot
1856 depend either on the number or courage of his troops. If made with judgment, notwithstanding his
1857 inferiority, he has often a good chance for victory. As your line approaches the enemy, advance
1858 your right wing against their left and begin the attack with your best cavalry and infantry. At the
1859 same time keep the rest of the army at a great distance from the enemy's right, extended in a
1860 direct line like a javelin. Thus if you can surround their left and attack it in flank and rear, you must
1861 inevitably defeat them. It is impossible for the enemy to draw off reinforcements from their right or
1862 from their center to sustain their left in this emergency, since the remaining part of your army is
1863 extended and at a great distance from them in the form of the letter L. It is a formation often used
1864 in an action on a march.

1865 The seventh formation owes its advantages to the nature of the ground and will enable you to
1866 oppose an enemy with an army inferior both in numbers and goodness, provided one of your flanks
1867 can be covered either with an eminence, the sea, a river, a lake, a city, a morass or broken ground
1868 inaccessible to the enemy. The rest of the army must be formed, as usual, in a straight line and
1869 the unsecured flank must be protected by your light troops and all your cavalry. Sufficiently
1870 defended on one side by the nature of the ground and on the other by a double support of cavalry,
1871 you may then safely venture on action.

1872 One excellent and general rule must be observed. If you intend to engage with your right wing
1873 only, it must be composed of your best troops. And the same method must be taken with respect
1874 to the left. Or if you intend to penetrate the enemy's line, the wedges which you form for that
1875 purpose before your center, must consist of the best disciplined soldiers. Victory in general is
1876 gained by a small number of men. Therefore the wisdom of a general appears in nothing more than
1877 in such choice of disposition of his men as is most consonant with reason and service.

1878 **THE FLIGHT OF AN ENEMY SHOULD NOT BE PREVENTED, BUT FACILITATED**

1879 Generals unskilled in war think a victory incomplete unless the enemy are so straightened in their
1880 ground or so entirely surrounded by numbers as to have no possibility of escape. But in such

1881 situation, where no hopes remain, fear itself will arm an enemy and despair inspires courage. When
1882 men find they must inevitably perish, they willingly resolve to die with their comrades and with
1883 their arms in their hands. The maxim of Scipio, that a golden bridge should be made for a flying
1884 enemy, has much been commended. For when they have free room to escape they think of nothing
1885 but how to save themselves by flight, and the confusion becoming general, great numbers are cut
1886 to pieces. The pursuers can be in no danger when the vanquished have thrown away their arms for
1887 greater haste. In this case the greater the number of the flying army, the greater the slaughter.
1888 Numbers are of no signification where troops once thrown into consternation are equally terrified at
1889 the sight of the enemy as at their weapons. But on the contrary, men when shut up, although weak
1890 and few in number, become a match for the enemy from this very reflection, that they have no
1891 resource but in despair.

1892 "The conquer'd's safety is, to hope for none."

1893 **MANNER OF CONDUCTING A RETREAT**

1894 Having gone through the various particulars relative to general actions, it remains at present to
1895 explain the manner of retreating in presence of the enemy. This is an operation, which, in the
1896 judgment of men of greatest skill and experience, is attended with the utmost hazard. A general
1897 certainly discourages his own troops and animates his enemies by retiring out of the field without
1898 fighting. Yet as this must sometimes necessarily happen, it will be proper to consider how to
1899 perform it with safety.

1900 In the first place your men must not imagine that you retire to decline an action, but believe your
1901 retreat an artifice to draw the enemy into an ambuscade or more advantageous position where you
1902 may easier defeat them in case they follow you. For troops who perceive their general despairs of
1903 success are prone to flight. You must be cautious lest the enemy should discover your retreat and
1904 immediately fall upon you. To avoid this danger the cavalry are generally posted in the front of the
1905 infantry to conceal their motions and retreat from the enemy. The first divisions are drawn off first,
1906 the others following in their turns. The last maintain their ground till the rest have marched off,
1907 and then file off themselves and join them in a leisurely and regular succession. Some generals
1908 have judged it best to make their retreat in the night after reconnoitering their routes, and thus
1909 gain so much ground that the enemy, not discovering their departure till daybreak, were not able
1910 to come up with them. The light infantry was also sent forward to possess the eminences under
1911 which the army might instantly retire with safety; and the enemy, in case they pursued, be
1912 exposed to the light infantry, masters of the heights, seconded by the cavalry.

1913 A rash and inconsiderate pursuit exposes an army to the greatest danger possible, that of falling
1914 into ambuscades and the hands of troops ready for their reception. For as the temerity of an army
1915 is increased and their caution lessened by the pursuit of a flying enemy, this is the most favorable
1916 opportunity for such snares. The greater the security, the greater the danger. Troops, when
1917 unprepared, at their meals, fatigued after a march, when their horses are feeding, and in short,
1918 when they believe themselves most secure, are generally most liable to a surprise. All risks of this
1919 sort are to be carefully avoided and all opportunities taken of distressing the enemy by such
1920 methods. Neither numbers nor courage avail in misfortunes of this nature.

1921 A general who has been defeated in a pitched battle, although skill and conduct have the greatest
1922 share in the decision, may in his defense throw the blame on fortune. But if he has suffered himself
1923 to be surprised or drawn into the snares of his enemy, he has no excuse for his fault, because he
1924 might have avoided such a misfortune by taking proper precautions and employing spies on whose
1925 intelligence he could depend.

1926 When the enemy pursue a retreating foe, the following snare is usually laid. A small body of
1927 cavalry is ordered to pursue them on the direct road. At the same time a strong detachment is
1928 secretly sent another way to conceal itself on their route. When the cavalry have overtaken the
1929 enemy, they make some feint attacks and retire. The enemy, imagining the danger past, and that
1930 they have escaped the snare, neglect their order and march without regularity. Then the
1931 detachment sent to intercept them, seizing the opportunity, falls upon them unexpectedly and
1932 destroys them with ease.

1933 Many generals when obliged to retreat through woods send forward parties to seize the defiles and
1934 difficult passes, to avoid ambushes and block the roads with barricades of felled trees to secure
1935 themselves from being pursued and attacked in the rear. In short both sides have equal
1936 opportunities of surprising or laying ambushes on the march. The army which retreats leaves
1937 troops behind for that purpose posted in convenient valleys or mountains covered with woods, and
1938 if the enemy falls into the snare, it returns immediately to their assistance. The army that pursues
1939 detaches different parties of light troops to march ahead through by-roads and intercepts the
1940 enemy, who are thus surrounded and attacked at once in front and rear. The flying army may
1941 return and fall on the enemy while asleep in the night. And the pursuing army may, even though
1942 the distance is great, surprise the adversary by forced marches. The former endeavor may be at
1943 the crossing of a river in order to destroy such part of the enemy's army as has already crossed.
1944 The pursuers hasten their march to fall upon those bodies of the enemy that have not yet crossed.

1945 **ARMED CHARIOTS AND ELEPHANTS**

1946 The armed chariots used in war by Antiochus and Mithridates at first terrified the Romans, but they
1947 afterwards made a jest of them. As a chariot of this sort does not always meet with plain and level
1948 ground, the least obstruction stops it. And if one of the horses be either killed or wounded, it falls
1949 into the enemy's hands. The Roman soldiers rendered them useless chiefly by the following
1950 contrivance: at the instant the engagement began, they strewed the field of battle with caltrops,
1951 and the horses that drew the chariots, running full speed on them, were infallibly destroyed. A
1952 caltrop is a machine composed of four spikes or points arranged so that in whatever manner it is
1953 thrown on the ground, it rests on three and presents the fourth upright.

1954 Elephants by their vast size, horrible noise and the novelty of their form are at first very terrible
1955 both to men and horses. Pyrrhus first used them against the Romans in Lucania. And afterwards
1956 Hannibal brought them into the field in Africa. Antiochus in the east and Jugurtha in Numidia had
1957 great numbers. Many expedients have been used against them. In Lucania a centurion cut off the
1958 trunk of one with his sword. Two soldiers armed from head to foot in a chariot drawn by two
1959 horses, also covered with armor, attacked these beasts with lances of great length. They were
1960 secured by their armor from the archers on the elephants and avoided the fury of the animals by
1961 the swiftness of their horses. Foot soldiers completely armored, with the addition of long iron
1962 spikes fixed on their arms, shoulders and helmets, to prevent the elephant from seizing them with
1963 his trunk, were also employed against them.

1964 But among the ancients, the velites usually engaged them. They were young soldiers, lightly
1965 armed, active and very expert in throwing their missile weapons on horseback. These troops kept
1966 hovering round the elephants continually and killed them with large lances and javelins.
1967 Afterwards, the soldiers, as their apprehensions decreased, attacked them in a body and, throwing
1968 their javelins together, destroyed them by the multitude of wounds. Slingers with round stones
1969 from the fustibalus and sling killed both the men who guided the elephants and the soldiers who
1970 fought in the towers on their backs. This was found by experience to be the best and safest
1971 expedient. At other times on the approach of these beasts, the soldiers opened their ranks and let
1972 them pass through. When they got into the midst of the troops, who surrounded them on all sides,
1973 they were captured with their guards unhurt.

1974 Large balistae, drawn on carriages by two horses or mules, should be placed in the rear of the line,
1975 so that when the elephants come within reach they may be transfixed with the darts. The balistae
1976 should be larger and the heads of the darts stronger and broader than usual, so that the darts may
1977 be thrown farther, with greater force and the wounds be proportioned to the bodies of the beasts.
1978 It was proper to describe these several methods and contrivances employed against elephants, so
1979 that it may be known on occasion in what manner to oppose those prodigious animals.

1980 **RESOURCES IN CASE OF DEFEAT**

1981 If while one part of your army is victorious the other should be defeated, you are by no means to
1982 despair, since even in this extremity the constancy and resolution of a general may recover a
1983 complete victory. There are innumerable instances where the party that gave least way to despair
1984 was esteemed the conqueror. For where losses and advantages seem nearly equal, he is reputed to
1985 have the superiority who bears up against his misfortunes with greatest resolution. He is therefore

1986 to be first, if possible, to seize the spoils of the slain and to make rejoicings for the victory. Such
1987 marks of confidence dispirit the enemy and redouble your own courage.

1988 Yet notwithstanding an entire defeat, all possible remedies must be attempted, since many
1989 generals have been fortunate enough to repair such a loss. A prudent officer will never risk a
1990 general action without taking such precautions as will secure him from any considerable loss in
1991 case of a defeat, for the uncertainty of war and the nature of things may render such a misfortune
1992 unavoidable. The neighborhood of a mountain, a fortified post in the rear or a resolute stand made
1993 by a good body of troops to cover the retreat, may be the means of saving the army.

1994 An army after a defeat has sometimes rallied, returned on the enemy, dispersed him by pursuing
1995 in order and destroyed him without difficulty. Nor can men be in a more dangerous situation than,
1996 when in the midst of joy after victory, their exultation is suddenly converted into terror. Whatever
1997 be the event, the remains of the army must be immediately assembled, reanimated by suitable
1998 exhortations and furnished with fresh supplies of arms. New levies should immediately be made
1999 and new reinforcements provided. And it is of much the greatest consequence that proper
2000 opportunities should be taken to surprise the victorious enemies, to draw them into snares and
2001 ambuscades and by this means to recover the drooping spirits of your men. Nor will it be difficult to
2002 meet with such opportunities, as the nature of the human mind is apt to be too much elated and to
2003 act with too little caution in prosperity. If anyone should imagine no resource is left after the loss of
2004 a battle, let him reflect on what has happened in similar cases and he will find that they who were
2005 victorious in the end were often unsuccessful in the beginning.

2006 **GENERAL MAXIMS**

2007 It is the nature of war that what is beneficial to you is detrimental to the enemy and what is of
2008 service to him always hurts you. It is therefore a maxim never to do, or to omit doing, anything as
2009 a consequence of his actions, but to consult invariably your own interest only. And you depart from
2010 this interest whenever you imitate such measures as he pursues for his benefit. For the same
2011 reason it would be wrong for him to follow such steps as you take for your advantage.

2012 The more your troops have been accustomed to camp duties on frontier stations and the more
2013 carefully they have been disciplined, the less danger they will be exposed to in the field.

2014 Men must be sufficiently tried before they are led against the enemy.

2015 It is much better to overcome the enemy by famine, surprise or terror than by general actions, for
2016 in the latter instance fortune has often a greater share than valor. Those designs are best which
2017 the enemy are entirely ignorant of till the moment of execution. Opportunity in war is often more
2018 to be depended on than courage.

2019 To debauch the enemy's soldiers and encourage them when sincere in surrendering themselves, is
2020 of especial service, for an adversary is more hurt by desertion than by slaughter.

2021 It is better to have several bodies of reserves than to extend your front too much.

2022 A general is not easily overcome who can form a true judgment of his own and the enemy's forces.

2023 Valor is superior to numbers.

2024 The nature of the ground is often of more consequence than courage.

2025 Few men are born brave; many become so through care and force of discipline.

2026 An army is strengthened by labor and enervated by idleness.

2027 Troops are not to be led to battle unless confident of success.

2028 Novelty and surprise throw an enemy into consternation; but common incidents have no effect.

2029 He who rashly pursues a flying enemy with troops in disorder, seems inclined to resign that victory
2030 which he had before obtained.

2031 An army unsupplied with grain and other necessary provisions will be vanquished without striking a
2032 blow.

2033 A general whose troops are superior both in number and bravery should engage in the oblong
2034 square, which is the first formation.

2035 He who judges himself inferior should advance his right wing obliquely against the enemy's left.
2036 This is the second formation.

2037 If your left wing is strongest, you must attack the enemy's right according to the third formation.

2038 The general who can depend on the discipline of his men should begin the engagement by
2039 attacking both the enemy's wings at once, the fourth formation.

2040 He whose light infantry is good should cover his center by forming them in its front and charge
2041 both the enemy's wings at once. This is the fifth formation.

2042 He who cannot depend either on the number or courage of his troops, if obliged to engage, should
2043 begin the action with his right and endeavor to break the enemy's left, the rest of his army
2044 remaining formed in a line perpendicular to the front and extended to the rear like a javelin. This is
2045 the sixth formation.

2046 If your forces are few and weak in comparison to the enemy, you must make use of the seventh
2047 formation and cover one of your flanks either with an eminence, a city, the sea, a river or some
2048 protection of that kind.

2049 A general who trusts to his cavalry should choose the proper ground for them and employ them
2050 principally in the action.

2051 He who depends on his infantry should choose a situation most proper for them and make most
2052 use of their service.

2053 When an enemy's spy lurks in the camp, order all your soldiers in the day time to their tents, and
2054 he will instantly be apprehended.

2055 On finding the enemy has notice of your designs, you must immediately alter your plan of
2056 operations.

2057 Consult with many on proper measures to be taken, but communicate the plans you intend to put
2058 in execution to few, and those only of the most assured fidelity; or rather trust no one but yourself.

2059 Punishment, and fear thereof, are necessary to keep soldiers in order in quarters; but in the field
2060 they are more influenced by hope and rewards.

2061 Good officers never engage in general actions unless induced by opportunity or obliged by
2062 necessity.

2063 To distress the enemy more by famine than the sword is a mark of consummate skill.

2064 Many instructions might be given with regard to the cavalry. But as this branch of the service has
2065 been brought to perfection since the ancient writers and considerable improvements have been
2066 made in their drills and maneuvers, their arms, and the quality and management of their horses,
2067 nothing can be collected from their works. Our present mode of discipline is sufficient.

2068 Dispositions for action must be carefully concealed from the enemy, lest they should counteract
2069 them and defeat your plans by proper expedients.

2070 This abridgment of the most eminent military writers, invincible Emperor, contains the maxims and
2071 instructions they have left us, approved by different ages and confirmed by repeated experience.
2072 The Persians admire your skill in archery; the Huns and Alans endeavor in vain to imitate your
2073 dexterity in horsemanship; the Saracens and Indians cannot equal your activity in the hunt; and
2074 even the masters at arms pique themselves on only part of that knowledge and expertness of
2075 which you give so many instances in their own profession. How glorious it is therefore for Your

2076 Majesty with all these qualifications to unite the science of war and the art of conquest, and to
2077 convince the world that by Your conduct and courage You are equally capable of performing the
2078 duties of the soldier and the general!

2079 * An instrument with four points so designed that when any three of them are on the ground the
2080 fourth projects upward. These are extensively used today for antitank barriers.