The Grand Strategy
of the Roman Empire

From the First Century CE
to the Third

REVISED AND UPDATED EDITION

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Contents

Maps, Figures, and Tables

Preface to the 2016 Edition

When the first edition of this book was published—it was nothing more than the text of a Johns Hopkins University dissertation, quickly written by a young husband and father in a hurry—it immediately attracted inordinate, wholly unexpected attention. A first wave of reviews was followed by journal articles, lengthy monographs, and then entire books, an unending flow in several languages that soon exceeded my ability to keep up.

Oddly enough, from the start this book was both highly praised and harshly condemned for exactly the same thing: my attribution of a "grand strategy" to the Romans, indeed three of them in succession over as many centuries: the first expansive, hegemonic, and reliant chiefly on diplomatic coercion; the second meant to provide security even in the most exposed border areas, in part by means of fortified lines whose remains are still visible from Britain to Mesopotamia; and the third a defense-in-depth of layered frontier, regional, and central reserve forces that kept the western empire going till the fifth century and the eastern empire for much longer.

There was a definite pattern in the reviews that appeared originally and in the articles and monographs that kept coming. The two most senior scholars of highest reputation, holding chairs at Oxford and Harvard, respectively, made light of any errors and omissions to instead praise the book unreservedly for uncovering the overall logic that explained a great many Roman doings and undoings in war and diplomacy, which previous scholarship had diligently described but not explained. They even predicted (accurately) that this book would transform Roman frontier studies.[1] But younger scholars still making their way were more critical, some harshly so. They started by pointing out the absence of any contemporary references to strategic planning, and the absence of any documents describing imperial strategy at any point in time. And they proceeded to argue that no such documents could possibly have existed because Romans never had military or civilian planning staffs, which in any case would have lacked such elementary tools as accurate maps.

These were not unreasonable objections (though I and others have argued otherwise, as noted below), but the vehement manner in which they were advanced strongly suggested that some scholars were offended by the very idea

that Roman men could transcend the mindless pursuit of personal glory to think rationally at all. One scholar started her critique with an account by Herodian (1.6.5–6) in which we encounter a capricious Commodus and his spoiled friends idly conversing about the merits of continuing to fight the Quadi and Marcomanni on the Danube frontier.[2] The implication is clear: Roman emperors were just foolish boys striking poses—exemplars of the mindless men of any age. In such depictions, one cannot recognize the emperors—yes, even Commodus— officials, and soldiers who devised, built, and maintained the structures of imperial security that long enabled obedient, tax-paying subjects and their obedient wives to raise crops, livestock, and children in considerable safety from marauders, raiders, and invaders even on the outer edges of the most exposed frontier lands. One may wonder why that author did not start with Augustus, the magisterially sly inventor of the principate, or with Tiberius at the Rhine crossing, standing in the freezing dawn to personally inspect the soldiers passing by to ensure that they were not overloaded with gear and rations, or with the indefatigable Hadrian, reviewing troop exercises in professional detail very far from Rome, or for that matter with Gaius ("Caligula"), when he decided that crossing the channel was not a good idea after all. Actually it is far better to simply leave aside our tenuous evidence on the proclivities of individual emperors, because the empire was an immeasurably larger reality than any of them. It encompassed countless nameless administrators and officers efficient and honest enough to recruit, train, equip, and supply hundreds of thousands of troops, including the shivering sentries who tenaciously guarded Hadrian's Wall and the auxiliary cavalry that daily patrolled desert frontiers in the extremes of summer heat, all of them doing their duty day after day, week after week, month after month, year after year, century after century. *That* was the empire, not the reported or misreported musings of Commodus and his friends.

More soberly, if still insistently, a work seemingly written in direct response to mine maintained that the Romans were incapable of strategic thinking and could not even lay out frontier defenses coherently—which then forced the author (and several others who followed him) to explain even conspicuously systematic fortifications extending over vast distances as nothing more than local improvisations.[3] Another scholar pointed out that the Romans lacked any formal training in statecraft, strategy, or foreign policy, and were thus incapable of making strategic decisions in any case. In sum, these critics berated me for having inferred comprehensive ("grand") strategies that could not pos

sibly have existed because the Romans were intellectually incapable of any such thing; hence, they argued, the archaeological, epigraphic, numismatic, and narrative evidence that I assiduously cited was simply irrelevant.

Fittingly, scholars in a middle category, neither junior nor eminent, paid the book the compliment of exceptionally extended attention, while being critical of its overall approach to a lesser or a greater extent.[4] Thus one scholar reviewed the book at very great length in the *Journal of Roman Studies*,[5] identifying a number of outright errors and challenging the entire notion that the Romans could have planned and executed any "grand strategy," lacking as they did a planning staff or general headquarters. This objection I discuss below, but another authority on the subject noted in response that "it would be anachronistic to speak of think-tanks and formal strategic studies, but we should credit the Romans with sufficient sophistication to develop a long-range strategy and the institutions to execute it."[6] Eventually it was a classical military historian who responded both to my thesis and to the critics most thoroughly, adding to my own understanding of key issues.[7]

A general criticism was that my presentation of the three successive grand strategies was excessively schematic, prompting the annotation of exceptions even by those who accepted the overall thesis. Such criticism I can hardly contest because I myself noted exceptions as I went along—for such is the crooked timber of humanity.

Even before the book was translated into several foreign languages—including Chinese and Hebrew—reviews from abroad started to come in, some of monograph length.[8] Several foreign reviewers were seemingly convinced that the book was really a coded justification of *American* imperialism. Naturally, I was grateful to all reviewers, with the more unfriendly all the more useful because they exposed additional errors, which I have finally been able to correct in this 40th anniversary edition. But there were curious aspects to some of the criticisms.

First, national strategies, grand or not so grand, must *always* be inferred from what is done or not done, and are *never* described in documents—or not, at any rate, in documents that might see the light of day. Official documents that purport to present "national strategies," which are of course filled with fine sentiments and noble promises, are abundant, but what they contain is romance, not policy guidance or military directives meant in earnest.

Second, thinking back on recent wars, on how they were started, on why they were started, and with what quality of information (less than what many a tourist collects before venturing to a foreign beach resort), the touching faith

of some of my critics in the value of formal training in statecraft, strategy, and foreign policy is almost moving in its innocence, suggestive of sheltered lives far removed from the crimes and follies that propel human history. I was frankly surprised that academics, of all people, would accept official descriptions of "strategy" as a form of systematic group thinking, based on detailed information and guided by rational choices. It is true that decisions are thus rationalized these days, but that is all. The decisions of war and peace are not made by highly trained experts after systematic analyses, but by whoever happens to be in charge, usually because of entirely unrelated political strengths, and informed mostly by passing conceits. It happens very rarely that foreign countries that are to be the scene of military ventures are actually studied, in their inevitably complex and ambiguous reality. Instead they are *imagined* in order to fit whatever ambitions are projected upon them—and not even the possession of the most perfect maps, nor any amount of specific intelligence can be a safeguard against that recurrent and often irremediable error. Napoleon, for example, imagined a Russia full of oppressed serfs ready to rebel to support his army—a strange assumption after poor peasants in Spain had already fought strenuously for their oppressors and against their French liberators. More recently, an Iraq *ripe for democracy* was disastrously imagined.

Third, I have found that many of the critics were writing in strict obedience to the obscurantist dogma that military history, ancient or modern, is *nothing more than "kings and battles," nonsense unworthy of academic study.* Certainly that is the prevalent attitude in contemporary American academia, judging by the miserably small number of military historians employed in university faculties. The eminent Byzantinist Walter E. Kaegi wrote of "scholars [who] have preconceived convictions or even prejudices that nonmilitary causes and dimensions of . . . history are the only ones really worth studying or understanding. . . . They can conceive of only social, economic, religious, experiental, or socio-cultural explanations and are unsympathetic to and sometimes even unforgiving of any inquiry into 'narrow' military matters."[9]

But ultimately the entire dispute rests on how strategy itself is understood. The critics—none of whom seem to have had any experience of military or policy planning, let alone of war (which is hardly blameworthy in classicists with no such pretensions, yet consequential), unlike the present writer —evidently view "strategy" as an essentially modern, bureaucratic activity, based on explicit

calculations and deliberate decisions, preceded by the gathering of all available data. That much is confirmed by their insistence on the importance of geographic knowledge, which the Romans sorely lacked, according to them, not least because they only had itineraries, not maps.[10] That objection at any rate is easily dealt with: ample uncontested evidence proves that the Romans habitually used large-scale surveying techniques to mark out their territories for fiscal purposes, could do so quite accurately, and even had distance-measuring carts.[11]

Strategy, however, is not about moving armies over geography, as in board games. It encompasses the entire struggle of adversarial forces, which need not have a spatial dimension at all, as in the case of the eternal competition between weapons and countermeasures. Indeed, the spatial dimension of strategy is rather marginal these days, and in some ways it always was.

It is the struggle of adversarial forces that generates the logic of strategy, which is always and everywhere paradoxical, and as such is diametrically opposed to the commonsense, linear logic of everyday life. Thus, we have, for example, the Roman *si vis pacem, para bellum*, if you want peace, prepare for war, or tactically, the bad road is the good road in war, because its use is unexpected—granting surprise and thus at least a brief exemption from the entire predicament of a two-sided human struggle. Strategically, it is that same paradoxical logic that transforms victories into defeats if they merely persist long enough to pass their culminating point, whether by overextension or by bringing others into the fray, or both. And there is much more of the same, at every level of struggle, from the clash of weapons to the clash of empires, and in peace as well as in war. Always and everywhere it is the paradoxical logic of strategy that determines outcomes, whether the protagonists know of its existence or not.[12]

Because strategy is neither straightforward nor transparent and never was, it is more easily absorbed intuitively than consciously learned. As it happens, the political culture of the Roman aristocracy was especially receptive to the logic of strategy. Its able-bodied and able-minded men were educated from a very young age in the realities of force, power, and influence and in the ruthless exercise of all three to advance themselves, their kin, and their empire in a fiercely competitive fashion. They were more than capable of understanding the sharp choices that strategy invariably requires, and perfectly willing to act accordingly, whether in the forum or on the battlefield. Their mentality

was especially well suited for strategic pursuits, because they were notably unsentimental, distinctly unheroic, and relentlessly purposeful above all; it would never have occurred to the Romans to invade territories that could not yield commensurate revenues. Roman strategic culture would suit our own times especially well.

Preface to the First Edition

An investigation of the strategic statecraft of the Roman Empire scarcely requires justification. In the record of our civilization, the Roman achievement in the realm of grand strategy remains entirely unsurpassed, and even two millennia of technological change have not invalidated its lessons. In any case, the study of Roman history is its own reward.

To one accustomed to the chaotic duplication, scientistic language, and narrow parochialism of the literature of international relations, the cumulative discipline, austere elegance, and cosmopolitan character of Roman historiography came as a revelation. And these virtues are especially marked in the specialized literature on the Roman army and the military history of the empire. Nevertheless, my own work was prompted by an acute dissatisfaction with this very same literature: the archaeologists, epigraphists, numismatists, and textual critics, whose devoted labors have uncovered the information on which our knowledge rests, often applied grossly inappropriate strategic notions to their reconstruction of the evidence. It is not that these scholars were ignorant of the latest techniques of systems analysis or unaware of the content of modern strategic thought; indeed, their shortcoming was not that they were old-fashioned, but rather that they were far too modern.

From the beginning of the nineteenth century until Hiroshima, strategic thought was dominated by post-Napoleonic, Clausewitzian notions, and these notions have pervaded the thinking of many whose primary interests are far from removed from military matters. In their crude, popularized form, these ideas stress a particular form of war, conflicts between nationalities; they stress the primacy and desirability of offensive warfare in pursuit of decisive results (thus inspiring an aversion to defensive strategies); and they imply a sharp distinction between the state of peace and the state of war. Finally, these ideas accord primacy to the active use of military force, as opposed to the use of images of force, for the purposes of diplomatic coercion.

Only since 1945 has the emergence of new technologies of mass destruction invalidated the fundamental assumptions of the Clausewitzian approach to grand strategy. We, like the Romans, face the prospect not of decisive conflict, but of a permanent state of war, albeit limited. We, like the Romans, must

actively protect an advanced society against a variety of threats rather than concentrate on destroying the forces of our enemies in battle. Above all, the nature of modern weapons requires that we avoid their use while nevertheless striving to exploit their full diplomatic potential. The revolutionary implications of these fundamental changes are as yet only dimly understood. It is not surprising, therefore, that even contemporary research on Roman military history is still pervaded by an anachronistic strategic outlook.

The paradoxical effect of the revolutionary change in the nature of modern war has been to bring the strategic predicament of the Romans much closer to our own. Hence this reexamination of the historical evidence from the viewpoint of modern strategic analysis.

Acknowledgment

When still an undergraduate but evidently destined for serious scholarship, Nathan Aschenbrenner undertook the task of reviewing the original text to identify passages that needed revision, or at least responses to critical appraisals. He did that and more, offering many valid suggestions. As he progresses in his chosen field of Byzantine studies, he has my enduring gratitude.

The Grand Strategy
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Introduction

In our own disordered times, it seems natural to look back for comfort and instruction to the experience of Roman imperial statecraft. No analogies are possible in the economic, social, or political spheres of life, but in the realm of strategy there are instructive similarities. The fundamentals of Roman strategy in the imperial age were rooted not in a technology now obsolete, but in a predicament that we share. For the Romans, as for ourselves, the two essential requirements of an evolving civilization were a sound material base and adequate security. For the Romans, as for ourselves, the elusive goal of strategic statecraft was to provide security for the civilization without prejudicing the vitality of its economic base and without compromising the stability of an evolving political order. The historic success of the Roman Empire, manifest in its unique endurance, reflected the high degree to which these conflicting imperatives were reconciled. It was certainly not battlefield achievements alone that ensured for so long the tranquility of vast territories, lands which have been in turmoil ever since.

Had the strength of the Roman Empire derived from a tactical superiority on the battlefield, from superior generalship, or from a more advanced weapons technology, there would be little to explain, though much to describe. But this was not so. Roman tactics were almost invariably sound but not distinctly superior, and the Roman soldier of the imperial period was not noted for his élan. He was not a warrior intent on proving his manhood but a long-service professional pursuing a career; his goal and reward was not a hero's death but a severance grant upon retirement. Roman weapons, far from being universally more advanced, were frequently inferior to those used by the enemies whom the empire defeated with such great regularity. Nor could the secular survival of the empire have been ensured by a fortunate succession of great feats of generalship: the Roman army had a multitude of competent soldiers and a few famous generals, but its strength derived from method, not from fortuitous talent.

The superiority of the empire, and it was vast, was of an altogether more subtle order: it derived from the whole complex of ideas and traditions that informed the organization of Roman military force and harnessed the armed power of the empire to political purpose. The firm subordination of tactical priorities, martial ideals, and warlike instincts to political as well as ideological goals was the essential condition of the strategic success of the empire. With rare exceptions, the misuse of force in pursuit of purely tactical goals, or for the psychic rewards of purposeless victories, was avoided by those who controlled the destinies of Rome. In the imperial period at least, military force was clearly recognized for what it is, an essentially limited instrument of power, costly and brittle. Much better to *conserve* force and use military power indirectly, as an instrument of political coercion.

Together with money and a manipulative diplomacy, forces visibly ready to fight but held back from battle could serve to contrive disunity among those who might jointly threaten the empire, to deter those who would otherwise attack, and to control lands and peoples by intimidation—ideally to the point where sufficient security or even an effective domination could be achieved without any use of force at all. Having learned in the earlier republican period how to defeat their neighbors in battle by sheer tactical strength, having later mastered the strategic complexities of large-scale warfare in fighting the Carthaginians, the Romans finally learned that the most desirable use of military power was not military at all, but political; and indeed they conquered the entire Hellenistic world with few battles and much coercive diplomacy.

The same effort to conserve force was also evident in war, at the tactical level. The ideal Roman general was not a figure in the heroic style, leading his troops in a reckless charge to victory or death. He would rather advance in a slow and carefully prepared march, building supply roads behind him and fortified camps each night in order to avoid the unpredictable risks of rapid maneuver. He preferred to let the enemy retreat into fortified positions rather than accept the inevitable losses of open warfare, and he would wait to starve out the enemy in a prolonged siege rather than suffer great casualties in taking the fortifications by storm. Overcoming the spirit of a culture still infused with Greek martial ideals (that most reckless of men, Alexander the Great, was actually an object of worship in many Roman households), the great generals of Rome were noted for their extreme caution.

It is precisely this aspect of Roman tactics (in addition to the heavy reliance on combat engineering) that explains the relentless quality of Roman armies

on the move, as well as their peculiar resilience in adversity: the Romans won their victories slowly, but they were very hard to defeat.

Just as the Romans had apparently no need of a Clausewitz to subject their military energies to the discipline of political goals, it seems that they had no need of modern analytical techniques either. Innocent of the science of systems analysis, the Romans nevertheless designed and built large and complex security systems that successfully integrated troop deployments, fixed defenses, road networks, and signaling links in a coherent whole. In the more abstract spheres of strategy it is evident that, whether by intellect or just traditional intuition, the Romans understood the subtleties of deterrence, and also its limitations. Above all, the Romans clearly realized that the dominant dimension of power was not physical but psychological—the product of others' perceptions of Roman strength rather than the use of that strength. And this realization alone can explain the sophistication of Roman strategy at its best.

The siege of Masada, which followed the fall of Jerusalem, reveals the exceedingly subtle workings of a long-range security policy based on deterrence. Faced with the resistance of a few hundred Jews on top of a mountain in the remote Judean desert, a place of no strategic or economic importance, the Romans could have isolated the rebels by posting a few hundred men to guard them. Based at the nearby springs of Ein Gedi, a contingent of Roman cavalry could have waited patiently for the Jews to exhaust their water supply. Alternatively, the Romans could have stormed the mountain fortress. The Jewish War had essentially been won, and only Masada was still holding out, but this spark of resistance might rekindle at any time the fire of revolt. The slopes of Masada are steep, and the Jews were formidable fighters, but with several thousand men pressing from all sides the defenders could not have held off the attackers for long, though they could have killed many.

The Romans did none of these things. They did not starve out the Jews, and they did not storm the mountain. Instead, at a time when the entire Roman army had a total of only 29 legions to garrison the entire empire, an entire legion was deployed to besiege Masada, there to reduce the fortress by great works of engineering, including a huge ramp reaching the full height of the mountain. The subordination of tactical priorities, martial ideals, and warlike instincts to political as well as ideological goals was the essential condition of Roman strategic success. This was a vast and seemingly irrational commitment of scarce military manpower—or was it? The entire three-year operation, and the very insignificance of its objective, must have made an ominous impression

on all those in the East who might otherwise have been tempted to contemplate revolt. The lesson of Masada was that the Romans would pursue rebellion even to mountaintops in remote deserts to destroy its last vestiges, regardless of cost. The methodical nature of the siege demonstrates the fact that although the goal was deterrence, this was no imprudent or irrational response. And as if to ensure that the message was duly heard, and duly remembered, Josephus was installed in Rome where he wrote a detailed account of the siege, which was published in Greek, the acquired language of Josephus and of the Roman East.

The suggestion that the Masada operation was a calculated act of psychological warfare is of course conjecture. But the alternative explanation is incredible, for mere blind obstinacy in pursuing the siege would be utterly inconsistent with all that we know of the protagonists, especially Vespasian—that most practical of men, the emperor whose chief virtue was a shrewd common sense.

We need not rely upon conjecture to reconstruct in considerable detail the basic features of Roman imperial statecraft from the first century CE to the third, the subject of this inquiry. The narrative sources that could have revealed at least *declared* motives and ostensible rationales are sadly incomplete and sometimes suspect. But the labors of generations of scholars have yielded a mass of detailed evidence on the physical elements of imperial strategy: the force structure of the army, the design of border defenses, and the layout of individual fortifications. At the same time, enough is known of the salient moments and general nature of Roman diplomacy to form a coherent picture of imperial statecraft as a whole, both the hardware and the software so to speak.

Three distinct methods of imperial security can be identified over the period. Each combined diplomacy, military forces, road networks, and fortifications to serve a single objective, functioning therefore as a system up to a point, albeit with local variations, interruptions, and exceptions. But each addressed a distinct set of priorities, themselves the reflection of evolving conceptions of empire: hegemonic expansionism for the first system; territorial security for the second; and finally, in diminished circumstances, sheer survival for the imperial power itself. Each system was based on a different combination of diplomacy, direct force, and fixed infrastructure, and each entailed different operational methods, but more fundamentally, each system reflected a different Roman world view and self-image.

With brutal simplicity, it might be said that with the first system the Romans of the republic conquered much to serve the interests of a few, those living in the city—and in fact still fewer, those best placed to control policy. During the

first century CE Roman ideas evolved toward a much broader and altogether more benevolent conception of empire. Under the aegis of the second system, men born in lands far from Rome could call themselves Romans and have their claim fully allowed; and the frontiers were efficiently developed to defend the growing prosperity of all, and not merely of the privileged. The result was the empire of the second century, which served the security interests of millions rather than of thousands.

Under the third system, organized in the wake of the great crisis of the third century, the provision of security became an increasingly heavy charge on society—and a charge very unevenly distributed, which could enrich the wealthy while certainly ruining the poor. The machinery of empire now became increasingly self-serving, with its tax collectors, administrators, and soldiers of much greater use to one another than to the society at large. Even then the empire retained the loyalties of many, for the alternative was chaos. When this ceased to be so, when organized barbarian states capable of providing a measure of law and order began to emerge in lands that had once been Roman, then the last system of imperial security lost its last source of support, men's fear of the unknown.

The Julio-Claudian System

Client States and Mobile Armies from Augustus to Nero

The first system of imperial security was essentially that of the late republic, though it continued into the first century CE under that peculiar form of autocracy we know as the principate. Created by the party of Octavian, himself a master of constitutional ambiguity, the principate was republican in form but autocratic in content. The magistracies were filled as before to supervise public life, and the Senate sat as before, seemingly in charge of city and empire. But real control was now in the hands of the family and personal associates of Octavian, a kinsman and heir of Julius Caesar and the ultimate victor of the civil war that had begun with Caesar's murder and ended in 31 BCE with the final defeat of Antony and Cleopatra.

Julius Caesar the dictator had overthrown the weak institutions of the republic. His heir, all-powerful after Actium, restored and immediately subverted the republic. In 27 BCE, Octavian adopted the name Augustus, redolent with semireligious authority; Rome had a new master. In theory, Augustus was only the first citizen (princeps), but this was a citizen who controlled election to all the magistracies and the command of all the armies.

Neither oriental despot nor living god, the princeps was in theory still bound by the laws and subject to the will of the Senate. But the direct power controlled by Augustus, the power of his legions, far outweighed the authority of the Senate, and the senators gave this power its due in their eager obedience.

Under Augustus the vast but fragmented conquests of two centuries of republican expansionism were rounded off and consolidated in a single generation. There has been much scholarly debate on the ambitions and motives of the age. What is certain is that Spain was fully occupied by 25 BCE, and three provinces were organized (Baetica, Lusitania, and Tarraconensis), though the last native revolt was not suppressed until 19 BCE. The interior of Gaul, conquered by Caesar but not organized by him for tax collection, was divided into three new provinces (Aquitania, Lugdunensis, and Belgica). In southern Gaul, the old province of Gallia Transalpina, formed in 121 BCE,

*was not reorganized but merely renamed Narbonensis; this was a land already heavily
Romanized and long since civilized.*

Germany was another matter. It was not until circa 12 BCE that Roman incur-
sions reached the Elbe. Roman soldiers and traders were establishing a presence, but to
establish a German province it would be necessary to eliminate all independent powers
between the Rhine and the Elbe. This the Romans set out to do, beginning in the year
6 with a great pincer operation from the upper Rhine and the Danube, which was to
enclose what is now Bohemia and trap the Marcomanni, the most powerful nation in
southern Germany. In the meantime, P. Quinctilius Varus was in northwestern Ger-
many with three legions and auxiliary troops, not to fight but to organize tax collection
in lands already counted as conquered.

But the great offensive against the Marcomanni had to be called off just as it was
about to begin: Illyricum, in the rear of the southern pincer, had erupted in a great
revolt. In the year 9 the revolt was finally suppressed, but just then the three legions
and auxiliary troops of Varus were ambushed and destroyed by the Germans of Ar-
minius, a former auxiliary in Roman service and a chief of the Cherusci. The Varian
disaster brought the Augustan conquest of Germany to an end. The lands east of the
Rhine were evacuated, and two military commands, for Upper and Lower Germany,
were established instead to control the lands west of the Rhine.

To the south, Roman policy had greater success. The Alpine lands stretching from
the foothills in northern Italy to the upper course of the Danube were subdued by 15
BCE, partly to be incorporated into Italy and partly to be organized into two prov-
inces, Raetia and Noricum (roughly, Bavaria, Switzerland, and western Austria).
East of Noricum, the sub-Danubian lands already under Roman control encompassed
the coastal tracts of Illyricum, Macedonia, and the client kingdom of Thrace. Under
Augustus, Roman power conquered all the remaining riparian lands of the Danube,
stretching from Croatia to Soviet Moldavia on the modern map. In the year 6, when
the encirclement of the Marcomanni was about to begin, Roman power was still too
new to pacify these lands, which are not fully tranquil even in our own day. When the
revolt came, it was on a grand scale; the so-called Pannonian revolt, which was actu-
ally centered in the roadless mountain country of Illyricum, was by far the most costly
of the wars of Augustus. It took three years of hard fighting with as many troops as the
empire could muster—even slaves and freedmen were recruited—to subdue Illyricum.
The Varian disaster followed the end of the revolt in the year 9 almost immediately, and
ambitious schemes of conquest beyond the Danube could no longer be contemplated.
The coastal lands of Illyricum were organized into the province of Dalmatia, and the

became the province of *Pannonia. The lower course of the Danube all the way to the river delta (on the post-1945 Russo-Romanian frontier) was fronted by the vast command of Moesia, but the client kingdom of Thrace occupied much of the hinterland in modern Bulgaria.*

In the *East, there were no Augustan conquests. The western half of Anatolia had long been provincial territory (the province of Asia [southwestern Turkey] dated back to 133 BCE). The client kingdom of Galatia was annexed in 25 BCE and formed into a province; beyond Galatia, kingdoms subject to Rome stretched from the Black Sea across to the province of Syria, the largest being the kingdom of Cappadocia. To the east was vast, primitive, and mountainous Armenia, almost entirely useless but nevertheless important, for beyond Armenia and south of it was the civilized Parthia of the Arsacids—the only power on the horizon that could present a serious strategic threat to the empire.*

Augustus did not try to avenge the great defeat inflicted by the Parthians on the Roman army of Crassus in 53 BCE at Carrhae. Instead, in 20 BCE he reached a compromise settlement under which Armenia was to be ruled by a king of the Arsacid family, who would receive his investiture from Rome. Behind the neatly balanced formality there was strategy, for Parthian troops would thereby be kept out of a neutralized Armenia and far from undefended Anatolia and valuable Syria. There was also politics—domestic politics. The standards lost at Carrhae were returned to Rome and received with great ceremony; Augustus had coins issued that falsely proclaimed the "capture" of Armenia.

Adjoining the client kingdoms of eastern Anatolia to the south was Syria, organized as a tax-paying province in 63 BCE. Next was Judea, a client kingdom until the year 6, and beyond the Sinai, Egypt. A province since 30 BCE, Egypt was most directly controlled by Augustus through a prefect, who could not be of senatorial rank. A senator might dream of becoming emperor, and control of the Egyptian grain supply could be worth many legions to a rebel.

The rest of North Africa was provincial territory: Cyrenaica (eastern Libya) had been organized since 74 BCE, and the province of Africa (western Libya and Tunisia) was still older, dating from the destruction of Carthage in 146 BCE. But the circle was not complete, and Augustus did not seek to close it: beyond the province of Africa, in the lands of modern Algeria and Morocco, Roman control was indirect, exercised through the client kingdom of Mauretania.

By the year 9 the energies of Augustan expansionism were spent, exhausted by the travails of Illyricum and Germany. This fact could not be hidden, but necessity could be presented as virtue. When Augustus died in the year 14, his stepson Tiberius of the

Claudian family (Augustus counted himself of the Julian) received a vast empire, which he had done much to conquer, as his inheritance, but he also received the admonition that its boundaries were not to be expanded farther.

Tiberius was both able and, it is said, sinister; he ruled until the year 37. He had to fight to subdue internal revolts, but fought no wars of conquest. Tiberius's acquisition of power was simple: a cowed Senate eagerly and fearfully proclaimed him ruler, and no army commander descended on Rome with his legions to contest the office. Another followed Tiberius by the same means—Gaius, nicknamed Caligula. Unbalanced, or perhaps merely maligned in our sources, Gaius was murdered in the year 41. There was talk of restoring the republic. But Claudius, uncle of the murdered emperor, was proclaimed emperor in turn, not by the Senate but by the Praetorian Guard, and not disinterestedly: each of the 4,500 Praetorians was paid 3,750 denarii as a cash bounty, more than 16 years' worth of pay to a private serving in the legions.

A man of grotesque appearance, foolish in his dealings with women, Claudius presided over a regime noted for its progressive benevolence to the provincials—and which soon resumed the path of imperial conquest after an interval of 37 years. In the year 43 Britain was invaded, to be conquered only in part thereafter, in gradual stages: more than 160 years later, the emperor Septimius Severus was still campaigning in Scotland.

Senators might still try to restore the republic with their daggers, but Claudius was killed, probably in the year 54, by poison, for pettier motives. His stepson Nero then ascended to the principate, the last of the Claudians. Nero inaugurated his rule with the first Parthian War of the principate. Tiridates, an Arsacid, had been made king of Armenia without benefit of a Roman investiture; and it was feared that Armenia might be transformed from buffer state to base of operations for Parthian armies advancing against undefended Anatolia and weakly held Syria.

Nero is known for extravagance and murder, but there was wisdom in his regime: the conduct of the Parthian War was moderate and successful, the outcome another useful compromise. In the year 66, after 11 years of intermittent war and almost continuous diplomacy, Tiridates was crowned king of Armenia once again, but this time in Rome.

The settlement came just in time. In the year 66 the Jewish revolt began and soon became a major war. It was to last until the year 73, if the isolated resistance of Masada is counted. Nero did not live to see its end. The last of the Julio-Claudians killed himself in 68; misfortune or excess had left him without the support of either Praetorians or Senate when his office was contested.

C. Julius Vindex, a new man, a Gaul, and a governor of Lugdunensis in Gaul, was one of the many whom Nero's unsystematic terror had frightened but not fully

intimidated. He declared Nero unfit for the office and proposed as princeps S. Sulpicius Galba, who was of venerable age and noble origin, a strict disciplinarian, and very rich. Galba could count on the aristocratic sentiments of the Senate, but as governor of Tarraconensis he had only one legion at his disposal. He began to raise another, but could not save Vindex when the governor of Upper Germany descended on Gaul with his legions.

It was one thing to destroy the Gallic levies of a Gallic upstart, but quite another to defend actively the power of Nero against Galba, a great Roman aristocrat. Thus Nero's cause triumphed, but Nero was lost. He had no support in Rome, or so he thought, possibly in petulance and panic. He did not appeal to the legions on the frontiers, where Julio-Claudian prestige might have obscured his extreme personal shortcomings. Instead, he planned an escape to Egypt, or so it is said. En route, he was deserted by his escort of Praetorians and sought refuge in the home of an ex-slave. There he heard that the Senate had declared him a public enemy, to be flogged to death according to the ancient custom. With help, he managed to commit suicide on June 9 in the year 68.

Thus ended the rule of the Julio-Claudians.

The System in Outline

The most striking feature of the Julio-Claudian system of imperial security was its economy of force. At the death of Augustus in the year 14, the territories subject to direct or indirect imperial control comprised the coastal lands of the entire Mediterranean basin, the whole of the Iberian peninsula, continental Europe inland to the Rhine and Danube, Anatolia, and, more loosely, the Bosporan kingdom on the northern shores of the Black Sea. Control over this vast territory was effectively ensured by a small army, whose size was originally determined at the beginning of the principate and only slightly increased thereafter.

Twenty-five legions remained after the destruction of Varus and his 3 legions in the year 9 and throughout the rule of Tiberius (14–37).[1] Eight new legions were raised between the accession of Gaius/Caligula in 37 and the civil war of 69–70, but 4 were cashiered, so that under Vespasian there were 29 legions on the establishment, only one more than the original number set by Augustus.[2]
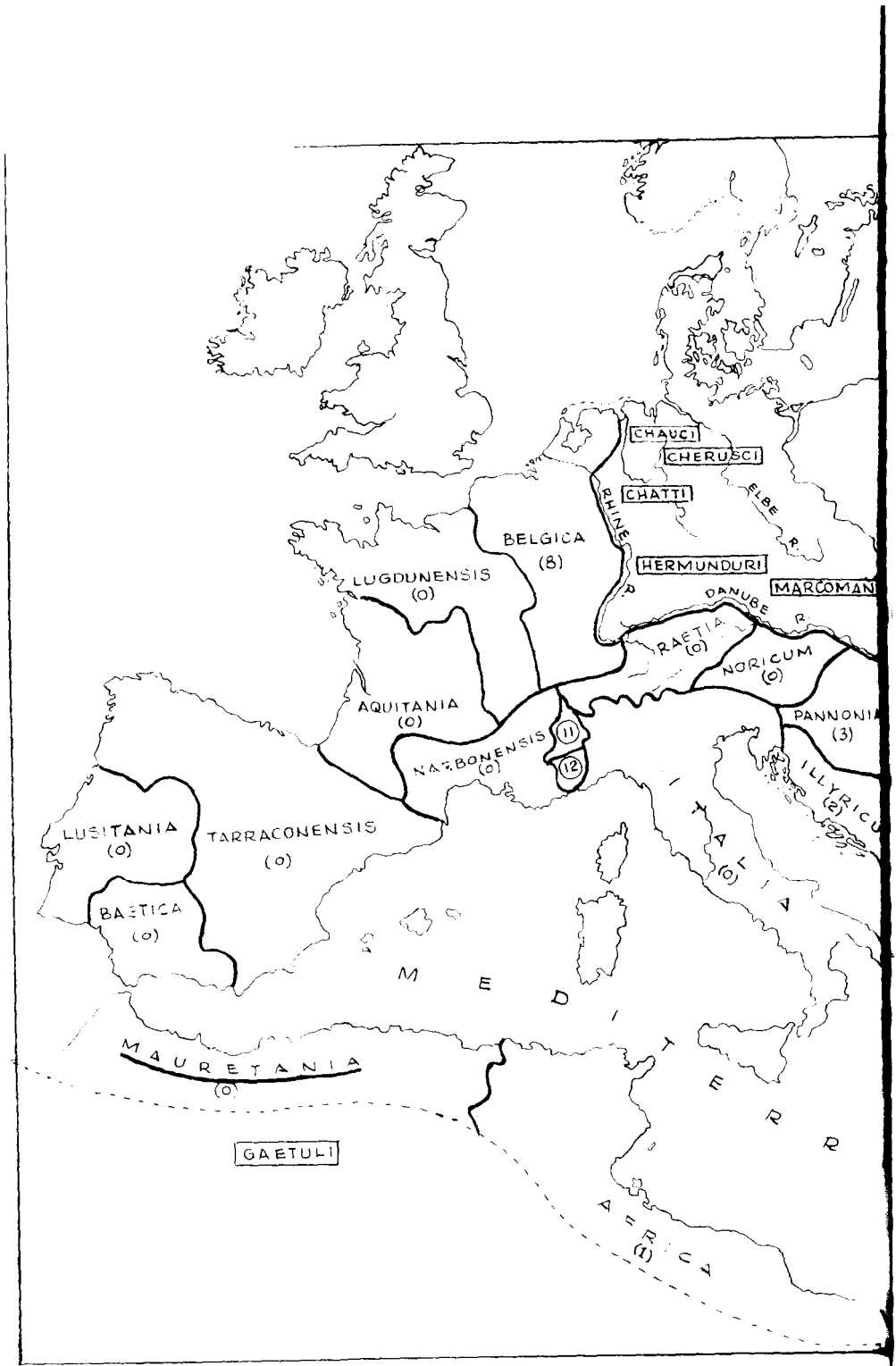
The exact manpower strength of the legions inevitably varied with circumstances, but it is generally agreed that at full strength each had about 6,000 men, including 5,120 or 5,280 foot soldiers, a cavalry contingent of 120 men, and sundry headquarters troops. It is normally assumed that the legions of the

principate had an establishment of nine standard cohorts of six centuries with
80 men in each and a first cohort with six double centuries, that is, 960 men
plus 120 mounted troops; but a revised reading of the surveyor's manual *De
Munitionibus Castrorum* yields 5,120 in nine standard cohorts and one first co-
hort of five rather than six double centuries.[3] On that basis, the upper limit on
the number of legionary troops would be about 168,000 men until the year 9,
and 150,000 thereafter, and no more than 174,000 after the year 70.

In addition to the legions of heavy infantry, then still composed mostly of
long-service citizen volunteers, there were the *auxilia*, who were in principle
noncitizens, though that was to change.[4] Organized into cavalry "wings" (*alae*),
light infantry cohorts, or mixed cavalry and infantry units (*cohortes equitatae*), the
auxilia did not merely add to the total number under arms but were tactically and
operationally complementary to the legionary forces of heavy infantry, provid-
ing capabilities they lacked with a great variety of cavalry and light infantry units.

There is no satisfactory evidence on the total troop strength of the auxil-
iary forces for the empire as a whole;[5] hence one cannot quarrel with the pos-
sibly fanciful near-equality with the total number in the legions that Tacitus
elegantly proposed (for the year 23) in *Annals* (4.5): "*at apud idonea provinciarum
sociae triremes alaeque et auxilia cohortium, neque multo secus in iis virium.*" (There
were besides, in suitable positions in the provinces, allied fleets, cavalry, and
light infantry only slightly inferior in strength). For us, it suffices to know that
the total number of auxiliary troops did not greatly exceed that of the legion-
ary forces—a possibility nowhere suggested in the primary sources. Accepting
the near 1:1 ratio as a valid approximation, the total number of Roman troops
would thus be on the order of 300,000 for the year 23, with a theoretical maxi-
mum of roughly 350,000 for the balance of the period until the year 70.[6]

Because Augustus claimed (*Res Gestae*, 3) to have personally paid off 300,000
men on their retirement with either lands or money ("*Ex quibus deduxi in colo-
nias aut remisi in municipia sua stipendis emeritis millia aliquanto plura quam trecenta,
et iis omnibus agros adsignavi aut pecuniam pro praemiis militiae dedi*"), it might
seem that the total number of men in the ground forces was not especially large
by contemporary standards. But the well-known difficulties of citizen recruit-
ment, already acute at this time, reflected a true demographic problem—Pliny's
"shortage of youths" (*iuventutis penuria*). The total male population of military
age in Italy probably numbered less than a million—one estimate has 900,000
iuniores, that is, the primary group of citizens of military age. Unsurprisingly,

CHAUCI
CHERUSCI
CHATTI
RHINE R.
BELGICA
(8)
HERMUNDURI
MARCOMAN
LUGDUNENSIS
(0)
ELBE R.
DANUBE R.
RAETIA
(0)
NORICUM
(0)
AQUITANIA
(0)
PANNONIA
(3)
NARBONENSIS
(0)
⑪
⑫
ILLYRICU
(2)
LUSITANIA
(0)
TARRACONENSIS
(0)
ITALIA
(0)
BAETICA
(0)
MEDITERR
MAURETANIA
(0)
GAETULI
AFRICA
(1)

Map 1.1. The Empire in 23 CE

LEGEND

QUADI - UNSUBDUED PEOPLES
AFRICA - IMPERIAL PROVINCE
(1) NUMBER OF LEGIONS IN PROVINCE
CAPPADOCIA - CLIENT STATES

▬▬▬▬ - POLITICAL/ADMINISTRATIVE
        BOUNDARIES OF EMPIRE

- - - - - APPROXIMATE LIMITS
          OF IMPERIAL CONTROL

① PROVINCE OF JUDEA - ANNEXED 6 C.E.
② TETRARCHY OF ANTIPAS
③ TETRARCHY OF PHILIP
④ TETRARCHY OF ABILENE
⑤ EMESA (OTHER SYRIAN STATELETS NOT SHOWN)
⑥ KINGDOM OF COMMAGENE
⑦ TARCONDIMOTID KINGDOM
⑧ TEUCRID ETHNARCHY
⑨ CILICIA TRACHEIA

⑩ ETHNARCHY OF COMANA
⑪ ALPES COTTIAE
⑫ ALPES MARITIMAE

CLIENT STATES

BOSPORUS
(0)

'A IANS

BLACK   SEA

THRACE
(0)

BITHYNIA
(0)

GALATIA
(0)

PONTUS
(0)

ARMENIA

⑩

CAPPADOCIA
(0)
⑦ ⑥

PARTHIAN
EMPIRE

ASIA
(0)

⑧

LYCIA
(0)

⑨

SYRIA
(4)

EUPHRATES

R

CYPRUS
(0)

⑤

④

S E A

② ③

①

NABATEAN
ARABIA

LEGION (c. 6000 MEN)

| 120 MAN CAVALRY UNIT | - - - | HEADQUARTERS
COMMAND
TECHNICIANS
MEDICAL STAFF | - - - | ARTILLERY
60?
CATAPULTS & BALLISTAE |

COHORTS ⟶

	①	②	③	④	⑤	⑥	⑦	⑧	⑨	1ST COHORT
STANDARD COHORT COMPRISED	80	80	80	80	80	80	80	80	80	160
OF 480 MEN IN 6 CENTURIES PLUS STAFF	80	80	80	80	80	80	80	80	80	160
	80	80	80	80	80	80	80	80	80	160
	80	80	80	80	80	80	80	80	80	160
	80	80	80	80	80	80	80	80	80	160
"CENTURY"-80 MEN ⟶	80	80	80	80	80	80	80	80	80	160

FIRST COHORT WITH DOUBLE CENTURIES

9 STANDARD COHORTS = 4320 MEN
+ 1ST COHORT = 5120/5280 FOOT SOLDIERS

WEAPONS { OFFENSIVE - PILUM (THROWING SPEAR), GLADIUM (SHORT SWORD)
DEFENSIVE - HELMET, BODY ARMOR, LARGE SHIELD

AUXILIA (AUXILIARY TROOPS)

CAVALRY

ALA QUINGENARIA
(QUINQUENARY ALA)
512 HORSEMEN

ALA MILLIARIA
(MILLIARY ALA)
C. 1000 HORSEMEN
+ HEADQUARTERS TROOPS

MIXED

COHORS EQUITATA (QUINGENARIA)
(MIXED COHORT)
380 FOOT
120 HORSEMEN

COHORS EQUITATA MILLIARIA
(MIXED COHORT, MILLIARY)
760 FOOT
240 HORSEMEN
+ HEADQUARTERS TROOPS

INFANTRY

COHORS (QUINGENARIA)
COHORT
C. 500 MEN

COHORS MILLIARIA
(MILLIARY COHORT)
C. 1000 MEN

NUMERUS
(IRREGULAR UNIT)
C. 300 MEN ?

OFFENSIVE WEAPONS - BOWS, SLINGS, THROWING SPEARS, LONG SWORDS,
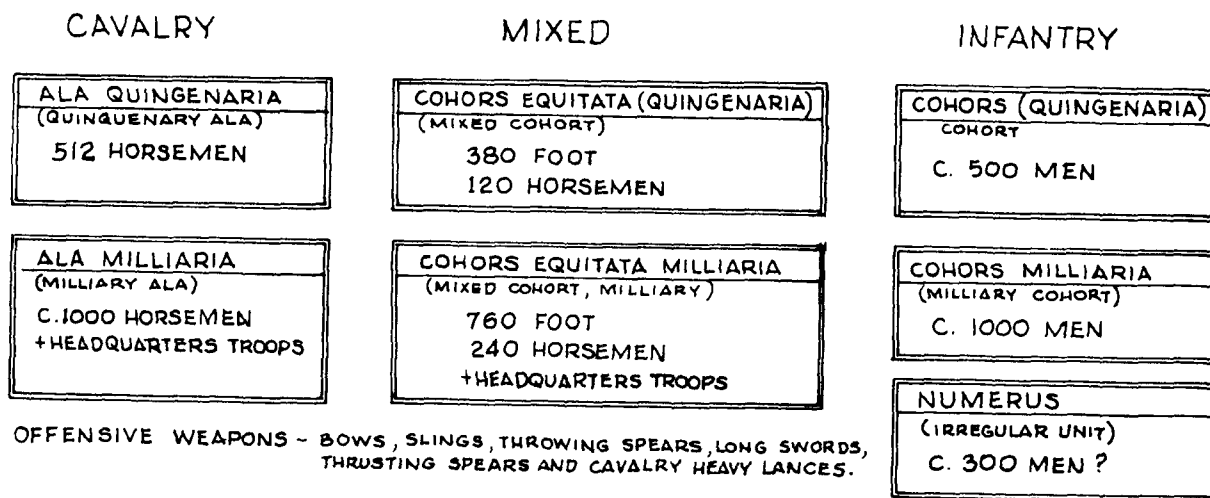THRUSTING SPEARS AND CAVALRY HEAVY LANCES.

Figure 1.1. Roman Unit Establishments in the First and Second Centuries CE

conscription was very unpopular, and it was abolished by Tiberius; as early as circa 50 CE one-third of the legionary manpower may have been of provincial birth.[7]

It was easier to pay for the army than to find suitable recruits. Annual pay and upkeep for a trained legionary soldier in the ranks came to 225 *denarii* per year; the overall cost of retirement grants, set at 3,000 *denarii* in the year 5, was a burden not much smaller than pay and upkeep, and there were also occasional donatives.[8] Nevertheless, it has been suggested that military spending was roughly half of total expenditures under Augustus, with the proportion declining as government revenues increased, though others calculate that it was more like three-quarters.[9]

The reorganization of the army following the civil war, which replaced the 60 leftover legions of unknown actual strength (some must have been much depleted) with 28 proper legions at full strength, certainly made sense from an organizational point of view. It is less likely that it was motivated by financial constraints, if only because the reorganization required vast expeditures for the severance grants of veterans leaving the army.

In that famous passage already cited, *Annals* 4.5, Tacitus provides the only comprehensive survey of the deployment of the legions that can be found in the narrative sources. Its accuracy has long been accepted by scholars.[10] According to Tacitus, in the year 23, the ninth year of the reign of Tiberius, there were eight legions on the Rhine, three in Spain, two in the province of Africa, two in Egypt, four in Syria, two in Moesia and two in Pannonia (for a total of four along the Danube), and two in Dalmatia, for a total of twenty-five. And then there were the *auxilia*, of which Tacitus refrains from giving a detailed breakdown. From this account one may gather the impression that the legionary forces, and the auxiliary troops with them, were distributed to form a thin perimeter. The consequent lack of a strategic reserve, held uncommitted in the deep rear, has regularly been noted and criticized.[11]

It is true that the forces in Italy, nine Praetorian cohorts and four urban cohorts, did not amount to much; the latter were primarily a police force and the former could provide no more than a strong escort for the rulers of Rome when they set out to campaign in person. On the other hand, Tacitus describes the two Dalmatian legions as a strategic reserve, which could cover in situ the northeastern invasion axes into Italy while also being available for redeployment elsewhere, because Dalmatia was not a frontier province.

In fact, the impression of a perimeter deployment is misleading. For one thing, as it has been pointed out, a key factor in the distribution of the legions was the need to confront internal threats, with external security only relevant in some sectors.[12] That explains the three legions in Spain, which was not frontier territory but was in the final stages of a secular pacification effort, and the two legions of Dalmatia, in the rear of the forces holding Pannonia. As Tacitus points out, Dalmatia was a convenient location for a strategic reserve, but the province had also been the scene of the dangerous Pannonian revolt in 6–9, "the most serious of all our foreign wars since the Carthaginian ones," according to Suetonius in *Tiberius* 16 ("*gravissimum omnium externorum bellorum post Punica*").

Similarly, the two legions in Egypt were obviously not required to ward off external threats, such as nomadic incursions. To counter or deter such elusive enemies, auxiliary units, especially if mounted, were much more effective than the solid mass of the legions. The latter, on the other hand, were very suitable for the task of maintaining internal security.

There was as yet no demarcated imperial frontier and no system of fixed frontier defenses, nor were the legions housed in permanent stone fortresses as they would be in the future. Instead, the troops slept in leather tents or in winter quarters (*hiberna*) built of wood, in camps whose perimeter defenses were not always more elaborate than those of the camps that legionary forces on the move would build each afternoon at the conclusion of the day's march. Nor were such legionary camps sited as tactical strong points, as Tacitus makes clear in *Histories* (4.23) in describing the site of Vetera (Xanten), the camp in which part of one legion and the remnants of another came under attack during the revolt of Civilis in 69–70. Indeed, they were not defensive positions at all ("*Inde non loco neque munimentis labor additus: vis et arma satis placebant*").

Deployed astride major routes leading both to unconquered lands ahead and to the sometimes-unsettled provinces in the rear, the legions were not there to defend the adjacent ground, but rather to serve as mobile striking forces. For practical purposes, their deployment was that of a field army, distributed, it is true, in high-threat sectors, but not tied down to territorial defense. Uninvolved in major wars of conquest between the years 6 and 43 (Britain), the army's salient function was necessarily to defend what Rome already had rather than to conquer more—until the policy changed.

Aside from the sporadic transborder incursions of Germans, Dacians, and, later, Sarmatians and from the rivalry with Parthia over Armenia, Rome's major

security problems were the result of native revolts within the empire. Characteristically, a delay, sometimes of generations, would intervene between the initial conquest and the outbreak of revolt. While the native power structure and the "nativist atmosphere" were still largely intact (and with Rome itself having introduced concepts of leadership and cohesion through the local recruitment of auxiliary forces), the resistance to the full impact of imperial taxation and conscription was often violent, sometimes more so than the resistance to the initial conquest had been.[13] Thus we see the revolt in Illyricum of the years 6–9 and the intermittent revolt of Tacfarinas in Africa between 14 and 24 CE; there were also more localized uprisings, such as that of Florus and Sacrovir in Gaul in the year 21 and, as a borderline case, the Jewish War.

Because northwestern Germany had been counted as conquered, the scant military experience of P. Quinctilius Varus—"a leading lawyer without any military qualities"[14]—limited to a peaceful march through uncontested Samaria with two legions, must have seemed sufficient. In any case, because Varus was there to organize a province rather than conquer one, the "Varian disaster" of the year 9 must also be counted as an "internal" war.[15]

Throughout this period, the control of internal insurgency presented a far more difficult problem than the maintenance of external security vis-à-vis Parthia—whose power was a serious threat certainly, but only in the East, hence a regional rather than a systemic threat. The Parthians certainly had no aspirations to conquer the entire Roman empire; accordingly, Tacitus (*Annals*, 13.6–7) makes it clear that the Romans considered them a regional rival, which was more than any other enemy anywhere near the empire was at the time.

The colonies were a second instrument of strategic control. Julius Caesar had routinely settled his veterans outside Italy, and Augustus founded 28 colonies for the veterans discharged from the legions. Not primarily intended as agencies of Romanization,[16] the colonies were islands of direct Roman control in an empire still in part hegemonic; as such, they were especially important in areas such as Anatolia, where legions were not ordinarily deployed. Whether located in provincial or client-state territory, the colonies provided secure observation and control bases. Their citizens were, in effect, a ready-made militia of ex-soldiers and soldiers' sons, who could defend their hometowns in the event of attack and hold out until imperial forces could arrive on the scene. They also provided a local base for operations in otherwise unpacified regions.

Neither the legions and *auxilia* deployed in their widely spaced bases nor the colonies outside Italy, scattered as they were, could provide anything re

sembling an all-round perimeter defense. There were no guards and patrols to prevent infiltration of the 4,000 miles of the imperial perimeter on land; there were no contingents of widely distributed mobile forces ready to intercept raiding parties or contend with localized attacks; there was no perimeter defense. In other words, there was no limes, in its later and conventional meaning of a fortified and guarded border.[17] At this time the word limes still retained its former (but not, apparently, original) meaning of an access road *perpendicular* to the border of secured imperial territory. Limes thus described a route of penetration cut through hostile territory rather than a "horizontal" frontier, and certainly not a fortified defensive perimeter.

It is the *absence* of a perimeter defense that is the key to the entire system of Roman imperial security of this period. There were neither border defenses nor local forces to guard imperial territories against the low-intensity threats of petty infiltration, transborder incursion, or localized attacks. As we shall see, such protection was provided, but only by indirect and nonmilitary means. By avoiding the burden of maintaining continuous frontier defenses, that is, the dispersal of imperial forces over very long perimeters, the deployable military power that could be generated by the imperial forces was maximized. Hence, the total military power that others could perceive as being available to Rome for offensive use—and that could therefore be put to political advantage by diplomatic means—was also maximized. Thus the empire's potential military power could be converted into actual political control at a high rate of exchange.

The diplomatic instruments that achieved this conversion were the client states and client tribes, whose obedience reflected both their perceptions of Roman military power and their fear of retaliation. Since clients would take care to prevent attacks against provincial territory, their obedience lessened the need to provide local security at the periphery of the empire against low-intensity threats, thus increasing the empire's net disposable military power—and so completing the cycle.

The Client States

In the year 14, when Tiberius succeeded Augustus to the principate, a substantial part of imperial territory was constituted by client states, which were definitely *of* the empire even if perhaps not fully within it, as Strabo (6.4.2) duly recognized. Legally, the constituted client states came under the jus postlimi-nii, even though for most purposes they were treated as de facto extensions of

imperial territory.[18] In the West primitive Mauretania was ruled by Juba II, a Roman creature originally established on his throne in 25 BCE. In the Levant, Judea was now a province, but in parts of Herod's former kingdom the tetrarchies of Philip and of Antipas remained autonomous. In Syria, the small kingdom of Emesa and the tetrarchy of Abilene were comparatively well-defined entities in an area that included a welter of lesser client cities and client tribes—Pliny's 17 "tetrarchies with barbarous names" (*"praeter tetrarchias in regna descriptas barbaris nominibus"*; *Natural History*, 5.81).

East of Judea was the merchant state of Nabatean Arabia. Its sparse population lived in small cities or roamed the desert, and its ill-defined territories stretched across Sinai and northern Arabia. Western Anatolia was organized into provinces, except for the "free league" of Lycia, but farther east there were still two large client states, Cappadocia and Pontus, as well as the smaller Teucrid principality, the Tarcondimotid kingdom, Comana, and the important Armenian kingdom of Commagene—its once famous capital, Samosata, is now flooded, lost to a Turkish dam—whose territory included the southern access routes to contested Armenia, the crucial strategic back door to Parthia.

Across the Black Sea the Bosporan kingdom that extended on either side of the straits of Kerch (Pantikapaion in the Greek of Roman times) included eastern Crimea and the western part of the Taman peninsula. It had no contiguity with imperial territory but was subject to substantial Roman control nonetheless, in spite of its chronic turbulence. This upheaval did not prevent it from being the most long-lasting of Roman client states, whose rulers were periodically removed, only to be reinstated; when it reached as far as the Don estuary, then a great trade market, its shortcomings were offset in Roman eyes by its commercial value. In the Balkans, Thrace remained a client state until the year 46. Even in the northern extremities of the Italian peninsula the important transit point of the Cottian Alps was ruled by a local chief, albeit one who was no more than an appointed official in the Romans' view.

These constituted client states of the still partially hegemonic empire did not exhaust the full scope of the client system. Roman diplomacy, especially during the principate of Tiberius, also established an "invisible frontier" of client relationships with the more primitive peoples beyond the Rhine and Danube.[19] Lacking the cultural base that a more advanced material culture and Greek ideas provided in the East, these clients were not as satisfactory as those of Anatolia or the Levant. Specifically, diplomatic relationships were less stable, partly because the power of those who dealt with Rome was itself less stable

(it was client rulers who made client states). Moreover, these clients, who were migratory if not nomadic, had a last resort that the territorial client states of the East never had—migration beyond the reach of Roman power.

Conditions were thus unfavorable, but the Romans were persistent. In 16 CE Tiberius called off the series of reprisal offensives against the Germans beyond the Rhine, which had followed the destruction of the three legions under Varus. As soon as the Roman threat was removed, the two strongest powers remaining in Germany, the Cherusci of Arminius and the Marcomannic kingdom of Maroboduus, naturally began to fight one another, which, we are told by Tacitus, was Tiberius's intention, and the way was opened for a Roman diplomatic offensive.[20] During the remainder of Tiberius's principate this resulted in the creation of a chain of clients from Lower Germany to the middle Danube. The Frisii, Batavi, Hermunduri, Marcomanni, Quadi, and Sarmatian Iazyges (whose settlement between the Tisza and the Danube had been procured by Rome) all became client tribes.[21]

This wholesale diplomatic subjugation was the product of a rational strategic policy on the part of Tiberius (*plura consilio quam vi perfecisse*), which generated the greatest security with the lowest level of applied force. Even in Britain, client relationships had been established in the wake of Julius Caesar's *reconnaissance en force*,[22] though Strabo's description (4.5.3) of an "intimate union" was no doubt an exercise in Augustan public relations: Britain remained unconquered and only marginally subjected to Roman desires.

These important diplomatic instruments were maintained by the successors of Tiberius, as some had been developed before him. The territories of these tribal clients could not be thought of as being within the perimeter of imperial security, nor were they destined for ultimate annexation, as the eastern client states were. Sometimes dependent and therefore obedient, and sometimes hostile, client tribes and tribal kingdoms required constant management with the full range of Roman diplomatic techniques, from subsidies to punitive warfare.

Roman notions of foreign client polities and the Roman view of the relationship between empire and client were rooted in the traditional pattern of patron-client relationships in Roman municipal life.[23] The essential transaction of these unequal relationships was the exchange of rewards (*beneficia*) accorded by the patron for services (*officia*) performed by the client. Discrete relations of the inequality between empire and client were recognized, though with the continuing increase in Roman power a divergence often developed

HEGEMONIC EMPIRE

LEGEND

—————— PROVINCIAL TERRITORY

—·—·— CLIENT STATE BOUNDARIES

------- CLIENT TRIBE BOUNDARIES

🔲 COMBINED TASK FORCES OF LEGION AND AUXILIA.

OUTER ZONE OF INFLUENCE

INNER ZONE OF DIPLOMATIC CONTROL

ZONE OF DIRECT CONTROL

CLIENTS BY SUASION

IMPERIAL FORCES CONTROL

CLIENT STATES

CLIENT TRIBES

CLIENT STATES

CLIENT TRIBES

CLIENT FORCES

CLIENTS RESPONSIBLE FOR LOCAL DEFENSE AND INTERNAL SECURITY

DISPOSABLE AND CONCENTRATED IMPERIAL FORCES AVAILABLE FOR WARS OF CONQUEST AND INTIMIDATION OF CLIENTS

LEGEND

▰▰▰ GUARDED OR FORTIFIED FRONTIER PERIMETER

—————— PROVINCIAL BOUNDARY

··🔲·· LEGIONS AND AUXILIARY UNITS DISTRIBUTED FOR FRONTIER DEFENSE

TOTALITY OF EMPIRE UNDER DIRECT RULE

ALL CLIENTS ANNEXED OR ABANDONED. ALL IMPERIAL FORCES DEPLOYED FOR FRONTIER DETERRENCE AND DEFENSE. NO "DISPOSABLE" FORCES FOR OFFENSE OR DEFENSE.

IMPERIAL FORCES DIRECTLY RESPONSIBLE FOR PERIMETER DEFENSE AND INTERNAL SECURITY.
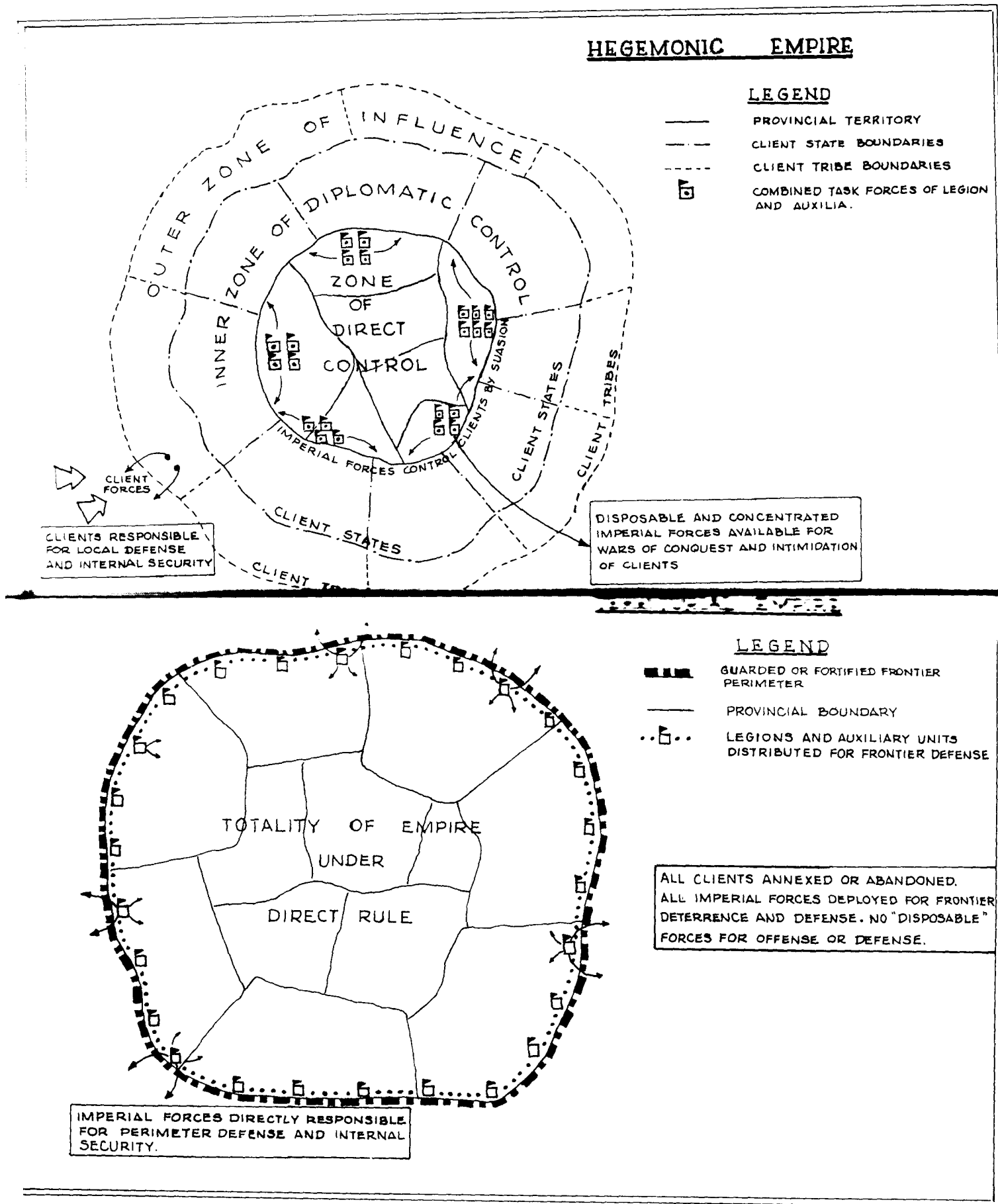
Figure 1.2. Two Models of Empire

between the formal and the actual relationship. By the later stages of the process, a client king whose formal status was that of a "friend of the Roman people" (*amicus populi Romani*)—a title suggesting recognition for services rendered "with a lively sense of favours still to come," but with no connotation of subservience[24]—was generally no more than a vehicle of Roman control. This applied not only to foreign and security policies but also to dynastic and domestic matters. In fact, no clear areas of authority were left as the client ruler's prerogative.[25]

The conventional characterization of the client kingdoms as "buffer states" does not correctly define their complex role in the system of imperial security. Only Armenia was a true buffer state, serving as a physical neutral zone between the greater powers of Rome and Parthia, and providing them with a device that would help them to avoid conflict as long as they desired to avoid conflict. But Armenia was sui generis, acting as a true client state only intermittently.[26] The security *officia* provided by the client states amounted to much more than the passivity of a true buffer state.

There were positive acts (including the provision of local troops to serve as auxiliaries for the Roman army and for purely Roman purposes),[27] but the most important function of the client states in the system of imperial security was not formally recognized as an *officium* at all. By virtue of their very existence, the client states absorbed the burden of providing peripheral security against border infiltration and other low-intensity threats, and they also provided the added geographic depth of their own territory to counter medium- and high-intensity threats.

At this time there was no truly empire-wide threat, though some lesser threats may have been seen as such: for example, in the year 6 there was momentary fear of a Germanic invasion of Gaul and even of Italy in the aftermath of the Varian disaster. As usual, Suetonius (*Augustus*, 23) captured the dramatic moment: "*Hac nuntiata excubias per urbem indixit, ne quis tumultus exsisteret, et praesidibus provinciarum propagavit imperium, ut a peritis et assuetis socii continerentur.*" And (*Tiberius*, 17) "*nemine dubitante quin victores Germani iuncturi se Pannoniis fuerint, nisi debellatum prius Illyricum esset,*" in regard to the sinister if most unlikely danger that the fierce Pannonians and Germans might combine against Rome. Misplaced fears aside, the only power that counted was Parthia. It was still recognized as a potentially formidable rival, but under the later Arsacids, who lasted till 244, Parthia was chronically weakened by internal struggles and does not appear to have been viewed as a great menace.

In Tacitus's later view, at any rate, the freedom of the Germans was deemed a more formidable threat than the Arsacid despots: *"quippe regno Arsacis acrior est Germanorum libertas"* (*Germania*, 37).

Partly because of the nature of the threats faced by Rome, the value of the client states in the security system as a whole far exceeded any effort required to maintain them, because their contribution was not merely additive to Roman military power, but complementary. Effective client states could provide for their own internal security and for their own perimeter defense against low-intensity threats, absolving the empire from that responsibility. For example, after Herod's death the turbulent land of the Jews required the presence of at least one legion (X Fretensis) and sometimes more: three legions (V Macedonica, X Fretensis, XV Apollinaris) from the year 67 until the Jewish revolt was finally suppressed three years later, and the X Fretensis alone thereafter; then two legions around the time of the outbreak of Bar Kokhba's revolt of the year 132, VI Ferrata and X Fretensis, which remained in place thereafter.[28]

The provision of internal security was the most obvious function of client states, and it is the one most commonly recognized.[29] In addition, however, efficient client states could also shield adjacent provincial territories from low-intensity threats emanating from their own territory or from the far side of the client state's periphery. For example, in Tacitus (*Annals*, 4.24), we read of Tacfarinas fought by client-state troops. Often approximated but not always achieved even by the most successful client states, this level of efficiency required a very delicate balance between strength and weakness, such as that supposedly achieved by Deiotarus, the client king of Galatia (d. 40 BCE), who was described in Cicero's special pleading (*Deiotarus*, 22) as strong enough to guard his borders but not strong enough to threaten Roman interests: *"Numquam eas copias rex Deiotarus habuit quibus inferre bellum populo Romano posset, sed quibus finis suos ab excursionibus et latrociniis tueretur et imperatoribus nostris auxilia mitteret."*

More commonly perhaps, the client states could *not* ensure high standards of internal and perimeter security comparable to those of provincial territory. Sometimes there were major disorders that threatened adjacent provincial lands or important strategic routes and therefore required the direct intervention of imperial forces. In King Juba's Mauretania, for example, 30 years of intermittent warfare were needed to subdue the Gaetuli; the fighting continued until the year 6. Soon thereafter, the revolt of Tacfarinas broke out in northern

Africa, not to be finally suppressed until the year 24, with the eventual commitment of two legions, III Augusta and IX Hispana.[30] (The revolt was centered in the province of Africa, but Mauretania and its chronically unruly tribes were also involved.) Another client state with severe internal and external security problems was Thrace, whose ruler, Rhoemetalces I, and his quarreling successors had to be repeatedly assisted against the Bessi.[31] But even in such cases, the *status* of the territories involved made an important difference. If direct Roman intervention did become necessary, its goal could be limited to the essential minimum of protecting local Roman assets and keeping the client ruler in control of his people, in contrast to the much greater military effort ordinarily required for suppressing insurgencies fully and bringing the affected areas up to provincial standards of tranquility. In other words, the direct intervention of Rome in the affairs of a client state would not mean that every rebel band would have to be pursued into deep forest or remote desert, as the Roman system of deterrence and Roman prestige required in provincial territory, with the siege of Masada in the barren Judean desert as the extreme case.[32] There, the entire tenth legion was commited to besiege fanatics holding out on top of an inconsequential mountain.

When client forces were inadequate, the locals could at least *absorb* the resultant insecurity, and the Romans were content to let them do so.[33] To censure Rome for this, as Mommsen did in commenting that the client states enjoyed neither "peace nor independence," reveals a lack of historical perspective and imposes anachronistic values on a premodern political relationship.[34] As we shall see, it was only much later that the systemic goals of the empire changed, requiring a modification in the fundamental strategy toward provision of high standards of security even at the peripheries of empire.

Against high-intensity threats, such as invasions on a provincial or even a regional scale, client states and client tribes could contribute both their own organic forces and their territorial capacity to absorb the threat—in other words, they could provide geographic depth. Any system of troop deployment that achieves high levels of economy of force does so by avoiding the diffusion of strength entailed by the distribution of forces along the full length of a defensive perimeter. Consequently, if high-intensity threats *do* materialize, they can usually be dealt with only after the fact. In the event of an invasion, enemy penetrations can only be countered and reversed after additional forces have been redeployed to the scene, and given the Roman rates of strategic mobility,

this was likely to happen, if at all, long after the damage had been done.[35] Notwithstanding a justly renowned road system, movements on land were of course very slow—3 miles per hour for marching troops, then as now, or 24–30 miles a day at most. Inter-sector journeys (e.g., Pannonia to eastern Anatolia) would accordingly take up much of a campaigning season. Movements at sea *could* be much faster, and often were much more direct.

Given the relationship between the system's economy of force and its inability to defend all frontier sectors all of the time or to campaign simultaneously on a serious scale on separate fronts (though nobody who can avoid doing so would ever do that), it was essential for the success of the system to limit the damage that high-intensity threats could inflict rapidly. If the damage were great, the costs of such penetrations could exceed the benefits achieved by the centralized deployment of forces. The client states were critically important in reducing these costs: even if their own forces could *not* maintain a defense until imperial troops arrived on the scene, the resultant damage would be inflicted not on Rome, but on what was not yet Roman territory in the full sense. This would considerably reduce the loss of prestige and the domestic political costs of enemy invasions to the rulers of Rome. Thus, during this period no Roman forces were ordinarily deployed to guard the entire Anatolian sector (from Zeugma in northeastern Syria to the Black Sea), which faced Armenia and the major invasion axes from Parthia. Instead, at the time of Tiberius's accession to the principate in the year 14, it was the client rulers of Pontus, Cappadocia, and Commagene who guarded the entire sector with their own forces, and it was their territories that would have absorbed the first impact of an invasion.

In a typical failure to appreciate the strategic significance of the Augustan arrangement, whose very essence was the avoidance of perimeter deployment, the absence of permanent Roman garrisons has been described as a "grave military defect."[36] By 72 CE, in the principate of Vespasian, all three states had been annexed, and annexation required the deployment of a costly permanent garrison of two legions on the Anatolian-Armenian border; both were stationed in the reorganized province of Cappadocia.[37] Thus, instead of an "invisible" border guarded by others at no direct cost to Rome, a new defended sector had to be created, and a supporting road infrastructure had to be built. When the supposed "defect" was duly corrected, the defense of eastern Anatolia permanently reduced the empire's disposable military power, and therefore reduced the system's economy of force.

Another obvious contribution of client states and client tribes to Roman security was the supply of local forces to augment Roman field armies on campaign. Naturally, these troops would fall into the Roman category of *auxilia*, that is, cavalry and light infantry, rather than legionary forces of heavy infantry. (Though one legion, the XXII Deiotariana, originated, as its cognomen indicates, in a formation raised by Deiotarus of Galatia, which had been trained and equipped as heavy infantry in the legionary manner).[38] In fact, many of the *auxilia* organic to the imperial army started out as tribal levies, which were then absorbed into the regular establishment, or as client-state troops, which were incorporated into the Roman army when their home states were absorbed.[39] Auxiliary troops contributed by clients had played an important part in the campaigns of the republic, not least because they could provide military specialties missing from the regular Roman arsenal, such as archers and, especially, mounted archers.

The complementarity between *auxilia* and legionary forces was an important feature of the Roman military establishment; moreover, the forces maintained by the client states were substantial. Even in the year 67, when the clients of the East had been much reduced by annexation, the three legions deployed under Vespasian to subdue the Jewish revolt were augmented, according to Josephus, by 15,000 men contributed by Antiochus IV of Commagene, Agrippa II, Sohaemus of Emesa, and the Arab ruler Malchus.[40] Forces supplied by client kings or tribal leaders relieved the pressure on the available pool of citizen manpower (as did the regular noncitizen *auxilia*) and reduced the financial burden on the Roman military treasury (*aerarium militare*). Even if they received pay and upkeep (as the tribal levies must have done), the auxiliaries would not have to be paid the very generous retirement grants due to legionary troops.

Weighed against these benefits, however, was the corresponding loss of fiscal revenue that the client system entailed: once duly annexed as provinces, client states would of course bear the full burden of imperial taxation. Tribal clients, from which it was not easy to extract tribute, one imagines—seem to have contributed fighting manpower to the empire in lieu of tribute, as the Batavi certainly did.[41]

The Management of the Clients

The value of state and tribal clients in the system of imperial security was a commonplace of Roman statecraft (Tacitus, *Germania*, 33). In his survey of the

distribution of imperial forces, Tacitus added the client kingdoms of Maureta-
nia and Thrace and the Iberian, Albanian, and other kings of the Caucasus to
his listing of the legions, obviously viewing the clients as forces to be added
up, even if they could never be the equivalent of Roman legionary forces (as
opposed to the more comparable *auxilia*).[42] In the same passage in *Germania*,
Tacitus carefully distinguished the status rankings of the various clients he
mentioned: Mauretania was described as "a gift from the Roman people"
to Juba II, while the Caucasian clients were viewed more or less as protector-
ates, "to whom our greatness was a protection against any foreign power."
Thrace, ruled as it was by native clients (Rhoemetalces at the time) and sub-
jected but not created by Rome, was said to be "held" by the Romans (Tacitus,
Annals, 4.5).

What contemporary observers like Tacitus may not have fully realized was
that the clients were not merely additive but complementary to Roman mili-
tary power—that is, they provided a different and synergistic form of power,
not just more force; and this complementarity was crucial to the preservation
of Rome's economy of military force. In fact, the system presupposed a hege-
monic rather than a territorial structure of empire, as the republican empire
clearly had been and as the principate also was at first, but eventually ceased
to be.[43]

Octavian had clearly appreciated the value of the system,[44] so much so that
after his victory at Actium he had no compunction about confirming the rule
of six of the major clients who had faithfully served his rival Antony, because
they were essential to the proto-empire as it existed.[45] It was only with minor
clients that Octavian allowed himself the luxury of punishing his enemy's
friends and rewarding his own; for example, he removed the Tarcondimotid
rulers of Hierapolis-Castabala (in Cilicia) who had been faithful to Antony
until the end. Even there, however, he eventually reversed himself and rein-
stated the Tarcondimotid Philopator a decade after Actium, a battle in which
Philopator's father had lost his life on Antony's side.[46] Octavian evidently dis-
covered (and Augustus remembered) that efficient and reliable client rulers
were very valuable instruments, and that not every associate deserving of re-
ward could master the exacting techniques of client statecraft.

Inherently dynamic and unstable, client rulers, both royal and tribal, re-
quired the constant management of a specialized diplomacy: Roman control
and surveillance had to be continuous. In the East, the dynasts who operated
the client system were sufficiently aware of their own weakness (and of the

BLACK SEA

SINOPE

PAPHLAGONIA

BITHYNIA ET PONTUS

ETHNARCHY
OF
COMANA

[PONT

COMANA

ANCYRA

HALYS R.

ASIA

MELITENE

PHRYGIA

CAPPADOCIA
ANNEXED 18 C.E.

[COMMAG

GALATIA
ANNEXED 25 B.C.

TARCONDIMOTID
KINGDOM
ANNEXED 17 C.E.

HIEROPOLIS
CASTABALA

ZEUGMA

CILICIA

CYRRHUS
X FRETENSIS

PAMPHYLIA

CILICIA
TRACHEIA

TEUCRID
ETHNARCHY

SELEUCEIA

LYCIA
FREE LEAGUE

ANTIOCH

III GALLIC
VI FERRAT

APAMEA

SYRI

CYPRUS

RAPHAN
XII FULMIN

MEDITERRANEAN SEA

Map 1.2 The East under the Julio-Claudians.
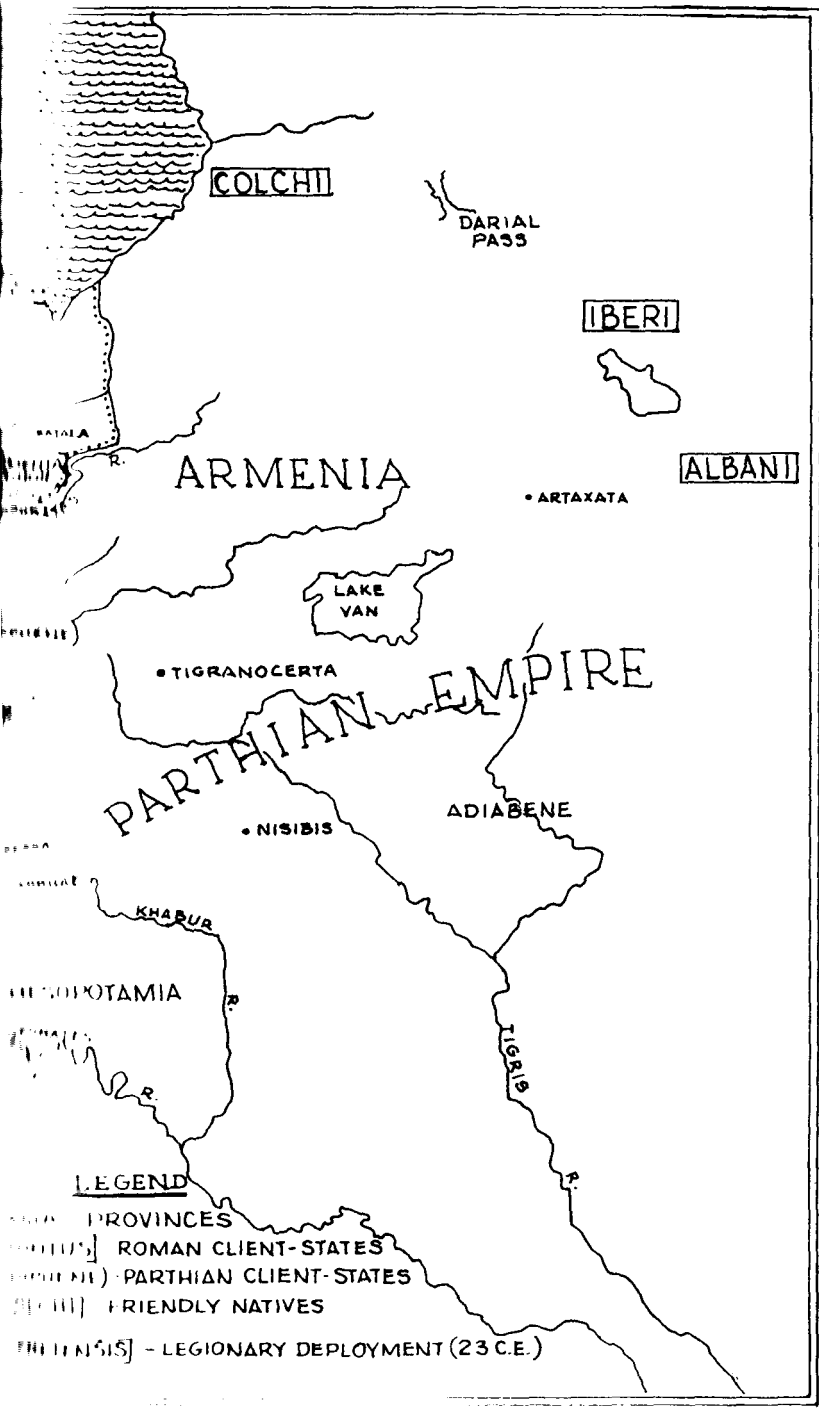
COLCHI

DARIAL
PASS

IBERI

ALBANI

•BATALA

R.

ARMENIA

• ARTAXATA

LAKE
VAN

•TIGRANOCERTA

PARTHIAN EMPIRE

ADIABENE

•NISIBIS

KHABUR

MESOPOTAMIA

R.

TIGRIS

R.

LEGEND

PROVINCES
ROMAN CLIENT-STATES
PARTHIAN CLIENT-STATES
FRIENDLY NATIVES

[NISIS] – LEGIONARY DEPLOYMENT (23 C.E.)

inevitability of Roman retribution) to remain loyal. Even so, internal dynastic rivalries and the complications of interdynastic family relations could threaten the stability of the system. Thus Herod's troubles with his sons—or his senile paranoia—upset the internal equilibrium of his important client state. Worse, these factors had repercussions on Cappadocia, since Glaphyra, a daughter of Archelaus, ruler of Cappadocia, was married to Alexander, one of Herod's executed sons.[47]

The vagaries of individual character, inevitable in dynastic arrangements, were all-important. For example, Eurycles, who inherited the small state of Sparta from his canny father, turned out to be an inveterate and dangerous intriguer; having left his own mean lands, Eurycles sowed discord between Cappadocia and Judea for his own personal advantage, and also seemingly caused unrest in Achea. While the important rulers of important states, such as Herod and Archelaus, were guided with great tact and patience by Augustus, Eurycles, a petty ruler of a village-state of no strategic importance, was simply removed from office.[48]

Augustus was personally well suited for the task of controlling the clients, and his firm but gentle paternalism was very much in evidence. But Roman dealings with client states had long since coalesced into a tradition and a set of rules, which no doubt served to guide policy. For example, it was well understood that no client could aggrandize himself at the expense of a fellow client without explicit sanction from Rome.[49] When Herod broke this cardinal rule by sending his forces into the adjacent client state of Nabatean Arabia, then in turmoil, Augustus promptly ordered him to stop. By way of punishment, Augustus wrote to Herod that henceforth he could no longer regard him as a friend and would have to treat him as a subject; given Augustus's style, this was equivalent to a harsh reprimand.[50] In order to contend with the inevitable countercharges that attackers could level at their victims in order to justify their own aggression (a common phenomenon in the Levant till now), the rule established by Rome under the republic specified that a client could only respond to attacks with strictly defensive measures until a Roman ruling could settle the issue.[51]

It was understood that Roman interests were best served by maintaining local balances of power between nearby clients, so that the system could keep itself in equilibrium without recourse to direct Roman intervention. Unfortunately, as rulers and circumstances changed over time, so did the power balances at the local level. Client rulers had their own military forces, their own

ambitions, and their own temptations. Those in the East, moreover, could at times have invoked the countervailing power of Parthia, as Archelaus of Cappadocia (in 17 CE) and Antiochus IV of Commagene (in 72 CE) were accused of having done (Tacitus, *Annals*, 2.42).[52]

Loyal and efficient client rulers were rewarded with personal honors, ordinarily receiving Roman citizenship (which Augustus's highly restrictive citizenship policy made an important privilege); but no honor or title could confer genuine equality in a world where none could equal Roman power.[53] More tangible rewards were also given, primarily territorial. The model client king, Polemo I of Pontus, received Lesser Armenia from Antony, and when Augustus detached that territory from Pontus, Polemo received instead the important (but, as it turned out, ungovernable) Bosporan state.[54] Similarly, when Herod—a very efficient client ruler indeed—was still in Augustus's good graces, he was granted in 24–23 BCE part of the plateau country of Ituraea (Golan-Hauran), at the expense of another client, Zenodorus, who had failed to control the nomadic raiding of his subjects.[55]

Relationships with the client tribes and barbarian principalities of continental Europe were of a different order. For one thing, these peoples were at least potentially migratory, even if not nomadic. They could flee into the remote interior, as Maroboduus did by taking his Marcomanni to Bohemia to escape the pressure of Roman military power on the upper Rhine.[56] This option had its costs: the abandonment of good lands for the uncertain prospect of others, possibly inferior, that might have to be fought for, and also perhaps the loss of valued commercial contacts with Roman merchants. Peoples migrating away from Roman power could still hope to remain within the sphere of Roman commerce, whose reach was much greater, but they could no longer play a profitable middleman role.[57]

The major difference between these two groups was cultural. The client rulers of the East and their subjects were, generally, sufficiently politically sophisticated to understand the full potential of Roman military power in the abstract, while the more backward peoples of continental Europe often were not. The rulers of eastern client states and their subjects did not actually have to see Roman legions marching toward their cities in order to respond to Rome's commands, for they could imagine what the consequences of disobedience would be. That would have been a good reason to provide schools for the education of the sons of European tribal chiefs, as the Romans did, according to Tacitus (*Agricola*, 21), "*iam vero principum filios liberalibus artibus erudire*." There

was also of course a simpler, geographic difference: the overland frontiers of Europe were much longer than those of the Levant.

Legionary deployments may have reflected other considerations as well—local considerations, that is—but it seems likely that the difference in how the populations responded to deterrence played some role, if only subconscious, in determining how legions were distributed. Further, the client rulers of the East normally enjoyed secure political control over their subjects. Only this security could ensure that their own perceptions of Roman power—and the restraints that this perception imposed—would be shared by their subjects. By contrast, in the less structured polities of Europe, the prudence of the well-informed (e.g., Maroboduus in the year 9) would not necessarily restrain all those capable of acting against Roman interests.[58]

Because the forceful suasion of Roman military power could only function through the medium of others' perceptions (and through the internal processes of decision and control of other polities), the primitive political character of the peoples of continental Europe could negate such suasion, or at least weaken its impact.[59] To the extent that the processes of suasion were negated by the inability or refusal of its objects to give Roman power its due, the actual political control generated by the military strength of the empire was correspondingly reduced. As a heroic generalization—for there were numerous exceptions—one can therefore say that while Roman military power was freely converted into political power vis-à-vis the sophisticated polities of the East, when employed against the primitive peoples of Europe its main use was the direct application of force. The distinction is, of course, quite basic, for power born of *potential* force is not expended when used, nor is it a finite quantity. Force, on the other hand, is just that: if directed to one purpose, it cannot simultaneously be directed at another, and if used, it is ipso facto consumed.

To be sure, Roman reprisals would soon educate their victims, making it more likely that the same group would in future respond to Roman orders. But as a practical matter, such induced propensities to react appropriately to potential force would apply only to direct threats. Further, they could be counteracted by tribal relocations; and their impact could still be attenuated by loose structures of internal control. In the strategic ambush by the German Cherusci against the three unfortunate legions serving beyond the Rhine under Varus, these three negative factors were all in evidence.[60] Nevertheless, Roman diplomacy persisted in trying to transform the northern border tribes into

clients and not without success. Direct political ties between the empire and selected chiefs were fostered by systematic policy.[61] As already noted, citizenship was almost a standard reward for chiefs; some further received the equestrian rank. Where sanctions were ineffective, positive incentives of a more tangible sort could take their place. The payment of subsidies to the border peoples, often popularly associated with the era of Roman decline, was already an established policy even before the principate, and continued to be a pillar of diplomacy throughout all three of the imperial systems described in this book.[62]

But in the disordered, barbaric world, even relationships cemented with both money and honors were unstable. Arminius, the betrayer and destroyer of Varus, had been given Roman citizenship and had served as the commander of an auxiliary force of Cherusci. His father-in-law, Segestes, and his brother, Flavus, both remained loyal to Rome (Segestes reportedly tried to warn Varus of the ambush), or so the sources claim.[63] These affiliations did not suffice to save Varus and his men. The incident makes clear that the patterns of authority in this native society disintegrating under Roman pressure were too weak to support a satisfactory client relationship. Segestes was evidently a chief in his own right, but he lacked the degree of control over his Cherusci that any self-respecting dynast of the East would have had.

In spite of the terrible experience of the *clades Variana*, the Romans did not despair of the policy, nor even of the family. Tacitus (*Annals*, 11.16) tells us that during the principate of Claudius, the Cherusci asked that a king be appointed for them, and they received as their ruler a son of Flavus and nephew of Arminius, a Roman citizen educated in Rome, whose name was Italicus: "*Eodem anno Cheruscorum gens regem Roma petivit, amissis per interna bella nobilibus et uno reliquo stirpis regiae, qui apud urbem habebatur nomine Italicus. Paternum huic genus e Flavo fratre Arminii, mater ex Actumero principe Chattorum erat.*" By then the client system had taken hold, after a full generation of ceaseless effort. When Tiberius decided to withdraw Germanicus and his forces from beyond the Rhine in 16 CE, thus suspending the reprisal operations that had followed the disaster of the year 9, the new diplomatic policy was launched. Even if these lands were not to be conquered, the Romans could not simply ignore the peoples living beyond the Rhine and Danube. These peoples, both great and little, represented too powerful a force to be left uncontrolled and unobserved on the long and vulnerable perimeter of the empire, which still had no border
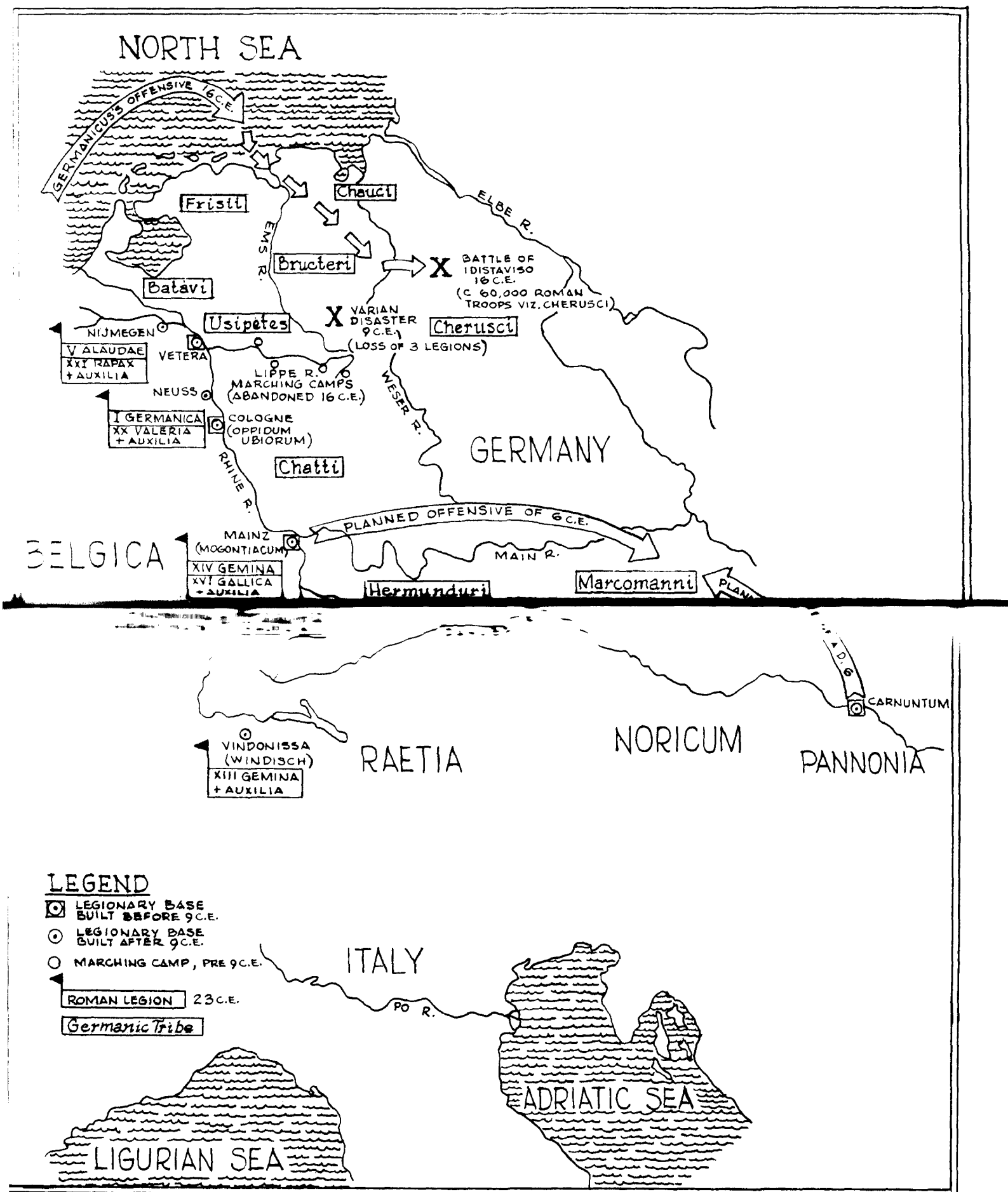
NORTH SEA

GERMANICUS'S OFFENSIVE 16 C.E.

Frisii

Chauci

ELBE R.

Bructeri

X BATTLE OF IDISTAVISO 16 C.E. (C 60,000 ROMAN TROOPS VIZ. CHERUSCI)

Batavi

EMS R.

Usipetes

X VARIAN DISASTER 9 C.E. (LOSS OF 3 LEGIONS)

Cherusci

NIJMEGEN

V ALAUDAE
XXI RAPAX
+ AUXILIA

VETERA

LIPPE R.
MARCHING CAMPS
(ABANDONED 16 C.E.)

WESER R.

NEUSS

I GERMANICA
XX VALERIA
+ AUXILIA

COLOGNE
(OPPIDUM UBIORUM)

GERMANY

RHINE R.

Chatti

PLANNED OFFENSIVE OF 6 C.E.

BELGICA

MAINZ
(MOGONTIACUM)

MAIN R.

Marcomanni

PLAN

XIV GEMINA
XVI GALLICA
+ AUXILIA

Hermunduri

A.D. 6

CARNUNTUM

VINDONISSA
(WINDISCH)

RAETIA

NORICUM

PANNONIA

XIII GEMINA
+ AUXILIA

LEGEND

⊙ LEGIONARY BASE BUILT BEFORE 9 C.E.
⊙ LEGIONARY BASE BUILT AFTER 9 C.E.
○ MARCHING CAMP, PRE 9 C.E.

◄ ROMAN LEGION 23 C.E.

Germanic Tribe

ITALY

PO R.

ADRIATIC SEA

LIGURIAN SEA

Fig 1.3. The German Problem, 6–16 CE

defenses. By the year 16, then, a coherent policy of diplomatic control was emerging for the first time, hinted at by Tacitus (*Annals*, 2.26) in speech attributed to Tiberius, which recalled the superiority of policy over arms, "*plura consilio quam vi perfecisse*," although most of its elements had long been present.

The first instrument of this policy was a manipulative and divisive diplomacy, intended to keep the Germanic peoples separated and, if possible, occupied in fighting one another. Although not a nice thing to do, all was fair north of the border.[64] But the Romans needed to do more than that. Once they became aware of the magnitude of the threat that the Germans represented, they could not be satisfied with attempts to weaken them by diplomatic intrigues. Much as they enjoyed the thought of barbarians killing one another (Tacitus, *Germania*, 33), the Romans clearly realized that it was far more practical to make positive use of German energies through the creation of a chain of client tribes, which would form an active barrier between the perimeters of the empire and the possibly still more dangerous barbarians deeper inland.

The control mechanism was complex. It was necessary to manipulate the tribes through their chiefs, while controlling the chiefs by means of personal threats and personal inducements; always there was the latent threat of force against the tribe as a whole. By channeling money and favors through chosen client chiefs, the Romans helped the latter gain power over their subjects, while the Romans gained power over them.[65] Some of the chiefs were appointed by Rome, while others rose on their own; but in either case the task of diplomacy was to maintain the two lines of control, internal and external, in working order. This must have required a good deal of petty border diplomacy, of which we know little. What is certain is that the policy was successful over a prolonged period: speaking of the once formidable Marcomanni and Quadi, Tacitus (*Germania*, 42) described both as ruled by client rulers maintained in power—and controlled—by a combination of occasional armed assistance and financial support: "*sed vis et potentia regibus ex auctoritate Romana. Raro armis nostris, saepius pecunia iuvantur, nec minus valent.*"

The major active instrument of client management among the primitive peoples of continental Europe was a systematic policy of subsidization.[66] The primary passive instrument, on the other hand, was the latent threat of Roman reprisals. The satisfactory state of affairs recorded by Tacitus in *Germania*, published in 98 CE, was the final product of this integrated policy. The sequence of events leading to the situation Tacitus described can be reconstructed as

follows: first, when the outbreak of the Pannonian revolt in the year 6 forced the Romans to cancel the planned invasion of Bohemia, an accommodation was reached with Maroboduus and his Marcomanni; whether they were simply bought off or conciliated by treaty, it is certain that they remained peacefully passive during the three years of the revolt. In 9 CE, after the Varian disaster, Maroboduus refused to cooperate with Arminius in a concerted attack on the empire (Tacitus, *Annals*, 2.45, 46). Following the Roman withdrawal, in the year 17 war broke out between the two greatest chiefs of Germany. Maroboduus was the loser, and though he asked for help under a claim of alliance reciprocity, his appeal was refused by the Romans (*Annals*, 2.46). Overthrown and driven out in 18 CE, Maroboduus merely received refuge in the empire, living out the last 18 years of his life in comfortable exile in Ravenna (*Annals*, 2.62). Shortly afterward, the Hermunduri fought and defeated Catualda, who had succeeded Maroboduus through Roman intrigue. Tiberius finally stepped in to appoint Vannius, chief of the Quadi, as ruler over the Marcomanni as well (Suevi is the generic name for both peoples), thus creating a full-fledged client state on the middle Danube, as Tacitus (*Annals*, 2.63) wrote: "*Barbari utrumque comirati, ne quietas provincias immixti turbarent, Danuvium ultra inter flumina Marum et Cusum locantur, dato rege Vannio gentis Quadorum.*" Vannius naturally received a regular subsidy but, again, no guarantee of protection,[67] a deft policy that kept client rulers keenly aware of their precipitous positions. Thus, he was left to his fate when attacked by the Hermunduri, though he, like Maroboduus, was given personal refuge (Tacitus, *Annals*, 12.29).

Tiberius's successor, Gaius (Caligula), may have intended to renew the attempt to conquer Germany in his own erratic way, and in the year 39 forces were seemingly assembled on the Rhine for the purpose. Suetonius's diverting account of the episode (*Gaius* 43–46) is amusing but not credible; in any case no move was made. When Claudius succeeded Gaius, he clearly reverted to the policy of Tiberius: in 47 CE the great general Cn. Domitius Corbulo (who was to win fame under Nero) was ordered to stop his attack on the Chauci in northern Germany. In the typical, indeed eternal pattern of imperial expansion, that attack had originated in a *counter*offensive against the sea-raiding Caninefates, but it was apparently developing into a general invasion of northern Germany. On orders from Claudius, the legions were withdrawn from the right bank of the Rhine, according to Tacitus (*Annals*, 11.19), "*Igitur Claudius adeo novam in Germanias vim prohibuit ut referri praesidia cis Rhenum iuberet.*" Inevitably, some petty border warfare persisted (e.g., in the year 50 against the

Chatti), but this was clearly of a defensive nature—punitive responses to trans-border raiding.

Evidently, Roman strategy in Germany under Claudius and Nero, as under Tiberius, was to rely on clients, unstable as these clients might be (Tacitus, *Annals*, 12.27, 28). The preference for using clients rather than imperial forces to maintain border security and even regional stability was definitely a deliberate strategy, even if it was not passed from emperor to emperor in some codified form, or written down in a document. If so preferred, it might be ascribed to mere instinct—if only because some contemporary scholars are offended by the notion that Roman men could *think* and strategically too. They invoke elemental cravings for personal renown, and booty of course, to explain all the actions of the emperors.

Much more is known of Roman client management in the East. In 17 CE Tiberius made drastic changes in the client-state structure of eastern Anatolia: Archelaus of Cappadocia (whose son-in-law Herod had executed) was tried and removed from office on the grounds of treasonable relations with Parthia; at about the same time, both Antiochus III of Commagene and Philopator of Hierapolis-Castabala died.[68] Tiberius decided to annex the three states. Cappadocia was by far the largest, but Commagene was also of particular strategic importance since its territory included one of the three crossings of the middle course of the Euphrates leading to Parthian lands.[69] Tiberius organized Cappadocia into a new province and attached Commagene to Syria, assigning the detached territory of Cilicia Tracheia and Lycaonia to Archelaus II, son of the deposed ruler of Cappadocia. (These moves have been explained as a strategic response to the breakdown of the Armenian settlement in the year 16, when the Roman client king Vonones was expelled from Armenia.)[70]

Gaius substantially reversed Tiberius's annexationist policy. Antiochus IV was restored to Commagene, which became a client state once more with the addition of Cilicia Tracheia. The sons of Cotys II, the murdered king of Thrace, who had been brought up in Rome as Gaius's playmates, all received kingdoms: Polemo II was given Pontus and—in theory—the Bosporan state (whose de facto ruler was Mithridates); Cotys III was given Lesser Armenia; and Rhoemetalces was given half of Thrace (the other half being under the rule of another Rhoemetalces, son of Rhescuporis, the killer of Cotys II). A further creation was Sohaemus, appointed to a tetrarchy in Ituraea (Hauran).[71]

A more important beneficiary of Gaius's generosity was C. Julius Agrippa I, "an oriental adventurer" and grandson of Herod the Great. Agrippa, who had

been imprisoned by Tiberius, was freed and amply rewarded by Gaius. In 37 CE he was given a small principality east of the Jordan; a year later he was granted further parts of Ituraea, lands actually detached from the provincial territory of Syria; in the year 40 he received Abilene and finally Galilee and Peraea, thus virtually reconstituting the northern half of Herod's kingdom under his rule, as described by Josephus in *Jewish Antiquities* (18.7.2).[72]

Both ancient and modern historians attribute Gaius's generosity to his personal emotions and to his madness. Which is also how they account for his deposition and execution of Ptolemy, king of Mauretania, in the year 40, which was followed by the annexation of that country.[73] Yet Gaius's successor, Claudius, who was neither mad nor improvident with the empire's resources, did not undo what Gaius had done. On the contrary, his policy was clearly intended to stabilize the settlement left by Gaius: Mithridates was recognized as ruler of the Bosporan state that Polemo II had been unable to control, and the latter was compensated in Cilicia; Antiochus IV, whom Gaius had removed in the year 40, reversing himself, was restored to his throne in Commagene; and Agrippa I (Gaius's favorite) received Judea and Samaria as further additions to his kingdom. These lands, it should be noted, had been under direct imperial rule since the removal of Archelaus, son of Herod, in 6 CE.[74] While it was the right thing to do strategically, in order to strengthen the client-ruler regime in the East, the grant to Agrippa I was also in part a reward for his role in securing Claudius's succession to Gaius.

The client states needed constant and responsive management: unsatisfactory rulers had to be replaced (as in the case of the Spartan Eurycles), and successors had to be found for rulers who died. But the system of indirect rule endured. It is true that there were further annexations (Judea again, in 44 CE; Thrace in 46 CE; and, under Nero, Pontus in the year 64), but there were also retrocessions, such as those which gradually enlarged the territories of C. Julius Agrippa II, a worthy follower of his father and namesake.[75] (There is some evidence indicating that Claudius actually appointed a special diplomatic agent charged with the management of client relations in situ.)[76] Those annexations should not therefore be misinterpreted as expansionist: they reflected the constant maneuvering required to maintain a hegemonic empire in changing circumstances.

In the absence of an organized foreign office, the work must have placed a considerable burden on the office of the emperor; but this was a burden that the Julio-Claudian emperors were obviously willing to accept, together with all

the ambiguities and complexities of the client system. Everything ultimately depended on whom the client rulers were. Men like Polemo I of Pontus and Agrippa II (who remained in power until 93 CE) were obviously specialists in the techniques needed on their part to make indirect rule both reliable and effective.

In the simpler lands to the west, the reality of imperial service was not concealed behind the screen of a false independence. A British chieftain mentioned by Tacitus, Cogidubnus, described himself as "King and Legate of the Emperor in Britain" (*Rex et Legatus Augusti in Britannia*), according to an epigraphical reconstruction.[77] Cottius, son of Donnus, was also in this position—he was prefect of the Cottian Alps to the Romans and a king to the locals.[78] It has been suggested that such dual status was a Claudian invention;[79] if so, it would confirm the impression that Claudius or his policy makers understood the virtues of indirect rule particularly well.

The Tactical Organization of the Army

The legions of the second century BCE described by Polybius were remarkably complex formations with a carefully balanced structure:[80] in addition to the core of heavy infantry, they included a significant contingent of cavalry and a substantial proportion of light infantry.[81] Legions contained three classes of heavy infantry: *hastati*, *principes*, and *triarii*; the first two classes, each consisting of 1,200 men, were armed with composite oval shields, swords, and the *pilum*, a heavy throwing spear 9 feet long, which was to emerge as the characteristic missile weapon of the legionary infantry.[82] The 600 or so *triarii* were also armed with the *hasta*, a long thrusting spear. What made these legions "balanced," as opposed to the legions of the principate, was their contingent of 1,200 light infantry (*velites*), armed with swords, small shields (*parmae*), and the *hasta velitaris* (a short, light javelin), and their 10 small squadrons of cavalry, amounting to 300 horse in all.[83]

It is true that with neither archers nor slingers these legions were obviously weak in missile weapons, while the organic cavalry contingent was rather small as well—too small to be employed independently as an offensive arm, as opposed to being a pool of horsemen for patrolling, scouting, and liaison. But when Gaius Marius (157–86 BCE) reformed the legions, he did not add missile troops nor more horsemen. To the contrary, he made the legions even more unbalanced than before. The *velites* were abolished, and the cavalry contingent

was apparently withdrawn gradually: there is no mention of organic legionary cavalry in the wars of Julius Caesar.[84] Also, the *triarii* were eliminated (though not their weapon) in the shift to a new tactical organization based on the 480-man standard cohort, whose troops were armed with the two-foot-long, double-edged "Spanish" sword, the *gladius*, as well as *pila*.[85]

The legions of the principate were essentially similar in structure, except that a small (120-horse) cavalry contingent was apparently reintroduced.[86] These changes meant that the legions became narrowly specialized forces of heavy infantry. In fact, as has been pointed out, legionary troops were dual-purpose infantry and combat engineers.[87] Each legion had engineering specialists in its headquarters, men who could survey a canal, design a circus, plan roads, and, above all, build or demolish walls and fortifications. When Claudius ordered Cn. Domitius Corbulo to disengage from his reprisal operations against the Chauci, Corbulo put his men to work digging a canal between the Maas and the Rhine, according to Tacitus (*Annals*, 11.20). After the battle of Bedriacum in the civil war of 69 CE, Vitellius sent the legion XIII Gemina to build amphitheaters at Cremona and Bononia (*Histories*, 11.67). All the roads were of course built by the legions, which included *mensores* (surveyors) in their headquarters. The troops must have been trained as skilled or semiskilled workers, and their personal kits included basic construction tools, notably a carefully designed, multipurpose pickaxe, the *dolabra*. Corbulo, the leading Roman general of the Claudian period, was fond of saying that victory was to be won by using the *dolabra*, according to Frontinus (*Strategemata*, 4.7.2): "*Domitius Corbulo dolabra hostem vincendum esse dicebat.*" The legions of the principate also included other heavy elements: organic artillery in the shape of stone-throwing *ballistae* and catapults that shot arrows or bolts. These weapons feature prominently in the recorded accounts of sieges, but they were also used for fire support in the field.

Under the right conditions, this unbalanced structure produced the highest degree of tactical effectiveness in the most reliable element of the Roman army, the legions. The "right conditions," however, were those of high-intensity warfare: close combat to hold ground under attack or to seize ground against concentrated enemy forces, including forces manning elaborate fortifications. By the same token, the relatively slow-moving legionary infantry was unsuited to guerrilla (or counter-guerrilla) warfare, and indeed for all mobile warfare against elusive enemies, particularly the cavalry armies of western and central

Asia. Purely legionary forces would perform rather poorly in such low-intensity warfare, which required small units, dispersal, much more missile power than shock capability, and as much cavalry as possible, except in dense forest or high mountain terrain. Such warfare, moreover, did not ordinarily require the engineering skills so highly developed in the legions.

The legion was trained to fight as a solid mass, in concentration; it had very little missile power, since there were few *pila*, and the range of a hand-thrown *pilum* would not normally exceed 100 feet.[88] Moreover, the legionary cavalry could only provide scouts and pickets; it was inadequate for proper screening against hostile cavalry and utterly inadequate for independent use as heavy "shock" cavalry or for harassing tactics against enemy infantry, in the manner of the mounted bowmen of the East. While lighter or otherwise more mobile forces could mount hit-and-run attacks against them, legionary forces could only advance slowly, if relentlessly, toward the centers of the enemy's power to reduce them by siege or assault. Given the degree of specialization of the legionary forces and their tactical limitations, it is clear that the *auxilia* were not merely additive but complementary to the legions, as it was long ago pointed out.[89] Thanks to the *auxilia*, the Romans could avoid a dilution of their citizen manpower in the kinds of forces for which it was unsuited, such as the cavalry[90] and missile troops, archers, and slingers, which were of especial value in wet weather when bows could not remain long exposed.[91]

At the same time, the particular capabilities of the legionary forces gave them escalation dominance over both enemies and allies—for in the last analysis they could always prevail over the *auxilia* in high-intensity warfare. Legionary forces could not prevent *auxilia* from running away, but they could be fairly certain of defeating them in open battle or siege warfare unless conditions were exceedingly unfavorable. Unfavorable conditions did prevail during the revolt of Civilis (in 69–70 CE), when two legions, V Alaudae and XV Primigenia, depleted and short of food, were besieged and massacred by dissident Batavian auxiliaries in the ill-situated camp of Vetera in Lower Germany. Four legions, I Germanica, XVI Gallica, IV Macedonica, and XV Primigenia, were later forced to surrender or went over to the rebels, according to Tacitus (*Histories*, 4.12–80, 5.14–26).

The revolt of Civilis had the general character of a war between legions and *auxilia*: eight Batavian auxiliary cohorts revolted, and Civilis himself, while an officer of the *auxilia*, was also a tribal chief (as two other famous rebels, Arminius and Tacfarinas, had also been). The dissidence of the *auxilia* under conditions

of stress was not a unique episode, even though the subsequent treason of Roman legions certainly was. In the narrative sources, the inherent unreliability of auxiliaries emerges repeatedly under both empire and republic: Sulla was concerned with preserving their loyalty, according to Frontinus (*Strategemata*, 2.7.3–5), and Plutarch (*Crassus*, 27.6, 7) recorded the unreliable conduct of Crassus's auxiliary cavalry at Carrhae. And in the year 70, when Q. Petilius Cerialis reached the zone of operations during the suppression of Civilis's revolt, he thought it prudent to send his Gallic auxiliaries back to their homes before entering the fight, with the message that the legions alone were adequate to restore order.[92]

In the two-level structure of the Roman army, the citizen forces of the legions, ordinarily highly disciplined and reliable, tacitly served to keep the *auxilia* under control if necessary, by means of their tactical superiority in high-intensity warfare. This was only a latent function of the legions, but one of obvious importance. Once the reliability of the *auxilia* was secured—and later reforms were to ensure it more fully—the combination of the legionary heavy infantry/combat engineers with varying mixes of the cavalry, light infantry, and missile units of the *auxilia* yielded task forces that could be tailored to the need. This gave the Romans tactical superiority in most terrains and against most enemies, as well as strategic—if not necessarily very prompt—escalation dominance against virtually everyone, because the Romans could out reinforce all comers.

Tacitus recorded that when Germanicus crossed the Rhine to search for the remains of the lost legions of Varus and, more important, to reestablish Roman prestige by reprisal operations meant to redeem the deterrent capability of Roman arms, he did so with two legions, eight *alae* of auxiliary cavalry, and no fewer than 26 cohorts of auxiliary infantry (*Annals*, 1.49): "*Sequitur ardorem militum Caesar iunctoque ponte tramittit duodecim milia e legionibus, sex et viginti socias cohortis, octo equitum alas, quarum ea seditione intemerata modestia fuit.*" Apparently, there was no standard allotment of *auxilia*: Varus had brought only three alae of cavalry and six cohorts of auxiliary infantry with his three legions, according to the former soldier Velleius Paterculus (2.117), "*ex Germania epistu- ... ium attulere caesi Vari trucidatarumque legionum trium totidemque alarum ... cohortium.*"

The most obvious deficiency of Roman arms was in the cavalry. As early as [2]4[1] BC the Romans had relied on mercenary Numidian cavalry to help fight the cavalry armies of Hannibal, and although a Roman citizen cavalry did exist

(as did the cavalry of the Italian *socii* until the "social war"), the pattern of reli-
ance on a noncitizen cavalry was consistently kept up. In the army of the prin-
cipate, the auxiliary cavalry appeared in two guises, as the *alae* of cavalry proper
and as the *cohortes equitatae*, mixed units of infantry and cavalry. Both, like the
normal infantry auxiliary cohorts, came in two classes of formation: the *ala
quingenaria* with 512 men and the *ala milliaria* with roughly twice as many.
The *cohors equitata* apparently had 380 or 760 infantry for the two classes of unit
and 120 or 240 cavalry.[93] Milliary units, however, are not attested before the
Flavian period: it is uncertain when they were first organized, and they did not
become significant until the Flavian era.

Because the cavalry of antiquity, including the Romans of this period, had
no stirrups (which the later Romans of the East would acquire from the Avars),
it has sometimes been assumed that all Roman mounted troops were "light"
cavalry, that is, horsemen trained and armed to attack from a distance with bow
or javelin, or else to harass the enemy in close quarters with spear or sword—as
opposed to "heavy," but not necessarily armored, cavalry, who were armed with
the long lance and trained to fight as a shock force, intended to press home the
charge.[94] Without stirrups, it has been argued, the cavalry could not charge
solid infantry, for no horseman could keep his balance once contact took place
(but, as every horseman knows, one stays in the saddle because of pressed-in
knees, with or without stirrups). It is certainly true that the development of
closed-rank infantry tactics from Sparta onward made the simple cavalry charge
virtually obsolete against disciplined foot soldiers, because even the best shock
cavalry would be defeated by infantrymen in close order who presented a wall
of shields and spears in the direction of the attack. In fact, the Romans used
heavy (though unarmored) cavalry as well as light, because the cavalry charge
could still be very effective against undisciplined infantry.[95] Moreover, the lack
of stirrups would not prevent cavalry charges against enemy cavalry, especially
unarmored light horsemen.

In addition, it is virtually certain that a cavalry tactic that could defeat even
disciplined infantry had been devised: this was the combined use of heavy cavalry
armed with lances and mounted bowmen (i.e., light cavalry). This technique
was used by the Parthian cavalry army that annihilated the seven legions
Crassus took to the field of Carrhae in 53 BCE.[96] A classic combination of fire
and shock, this tactic employed high volumes of arrow fire from mounted
bowmen to attack the ranks of the Romans, while the lancers forced them to
remain in closed ranks by the threat of a charge, or an actual charge—thus

nsuring their vulnerability to arrow fire. In this situation, the infantry could
neither come to grips with the bowmen nor march away to shelter—even if
suitable terrain were close at hand. Once it is realized that even without stirrups,
horsemen could and did press the charge, the value of the auxiliary cavalry of
the *alae* can be seen in proper perspective: they added not only a scouting, coun-
terscouting, and pursuit force to the legions, but also a shock element—very
useful in breaking concentrations of light cavalry and quite lethal against undis-
ciplined warriors on foot.

In relying on auxiliary cavalry, the Romans were merely compensating for
the poor quality of their citizen horsemen (and horses?). On the other hand,
their reliance on auxiliary missile infantry (archers, slingers, and javelin-throwers)
served a positive purpose: it preserved the comparative advantage the Romans
enjoyed in the superior arm of the heavy infantry. Given the Romans' chronic
manpower shortage, it would have been inefficient to dilute scarce citizen man-
power by deploying it as light infantry, a commodity easily obtained outside
Italy. Here, too, there were very old precedents. Livy (22.37) recorded the re-
cruitment of a thousand archers and slingers from Syracuse in 217 BCE,[97] and
during Caesar's wars in Gaul, the "classic trio"—Cretan archers, Balearic sling-
ers, and Numidian infantry (spearmen?)—already appeared, and they remained
fixture of the auxiliaries of the principate (Caesar, *Bello Gallico*, 11.7.1).

According to a nineteenth-century experiment sponsored by Napoleon III,
the maximum practical range of the Roman throwing spear (*pilum*) in the hands
a strong and trained man was about 100 feet. According to the same experi-
ent, the maximum *effective* range of the composite bow made of a wooden
re with sinew on the outside and bone keratin on the inside was between 175
and 190 yards.[98] (Much longer ranges have been cited, but these probably refer
special bows, special bowmen, *and* special "fly" arrows not useful in war.)
he maximum accurate *and* effective range of the composite bow of antiquity
not more than 65 yards or so, but still nearly double that of the *pilum*. The
most important advantage of the bow over the *pilum* was thus its greater *vol-
ume of fire* rather than its superior range: soldiers on the march could carry
but a few *pila* (two being the probable standard), while bowmen would have
many arrows.

Slingers and bowmen performed the same function—giving cover and sup-
port with their missile fire to advancing (or retreating) infantry. In siege war-
and in mobile warfare as well if conditions allowed, light missile fire was
plemented by the artillery. Because well built fortifications would withstand

the shot of all but the very largest stone-throwers (*ballistae*), the more common mission of the artillery in siege warfare must have been to give covering fire for the advance of battering rams and other shock engines. The artillery was sufficiently mobile for field use, too, at least on firm and level ground: in 14 CE Germanicus used arrow-firers (*tormenta*) to drive the Chatti from the opposite bank while his troops made a contested river crossing. In another episode two years later, he used artillery to cover the assault of Roman troops against an earthwork manned by Cherusci warriors—forcing the Cherusci to keep their heads down and suspend their missile fire, according to Tacitus (*Annals*, 1.56, 11.20; cf. Suetonius, *Gaius*, 46).

We do not know the standard number of artillery weapons organic to the legions, but a decent guess is probably 6 pieces per cohort (i.e., 60 per legion)—mostly arrow-shooting catapults and the rest heavier, stone-throwing *ballistae*. It appears that the *auxilia* ordinarily had no artillery or siege engines. Although there is no conclusive evidence either way, it is evident that allowing them such weapons would have contradicted the principle of escalation dominance; the presence of artillery among the often primitive troops of the *auxilia* would need explanation. (When Civilis and his auxiliary troops besieged the Roman camp at Vetera, they used siege engines built by Roman prisoners and deserters, i.e., legionary troops, according to Tacitus, *Histories*, 4.23.[99] A more recent parallel: one of the precautions taken by the British in India in the aftermath of the 1857 mutiny was to deny artillery to most Indian regiments.)

Although the skills of the *auxilia* complemented those of the legions, so that mixed legionary-auxiliary task forces were "balanced" multipurpose field armies, the overall comparative advantage of the Roman army was still in high-intensity warfare: the slow but relentless strategic penetration of enemy territory in depth, secured by road construction and en route fortifications; full-scale battles against dense troop concentrations; and, above all, offensive and defensive siege warfare.[100] As the degree of force concentration and combat intensity increased, so did the tactical superiority of the Romans.[101]

This tactical-structural factor had strategic implications of great significance: the Roman army was clearly best equipped to serve as an instrument of warfare against enemies with *fixed* assets to protect—primarily cities, but also such things as arable lands or even irrigation systems. Conversely, Roman capabilities were less useful in fighting enemies whose assets and sources of strength were not fixed, or at any rate, not concentrated. It was pointless for

the Romans to cut a path through forest and swamp to reach the primitive townships of the Germans, because the real sources of German strength were rural and diffuse: even the loss of all their towns would not be a serious blow. Nor were Roman capabilities all that well suited to fight the Parthians or, later, the Sassanids in the East. Although both had some important cities, their major source of combat strength—the cavalry—originated in the small and semino-madic settlements of the Iranian plateau, vast in size, most arid, torridly hot in summer and freezing in winter, altogether not a suitable environment for Roman soldiers. Even when the Romans did conquer and sack Parthian cities, including Ctesiphon, the Arsacid capital, their power remained unbroken.

So it was with Dacians, Sarmatians, and the nomads of Arabia and North Africa as well: none could resist the relentless advance of Roman invasion col-umns, but neither could the Romans apply their strength effectively against the widely dispersed rural bases of warrior nations whose life and strength did not depend on the survival of a city-based economic and social structure. Con-sequently, if the Romans persisted in their efforts, their only real alternative was to attack the population base itself in a war of extermination. In the ab-sence of a settled pattern of life that the army could control and reorganize under Roman rule, peace required that first a desert be made. Thus at the conclusion of Domitian's campaign against the Nasamones of North Africa, he reported to the Senate that the war had been won, and that the Nasamones had ceased to exist.[102]

If this analysis of Roman military capacities is correct, a technico-military reason for the geographic limits of imperial expansion is suggested. A function not of sheer space, distance, or even demography, these limits were of a quali-tative nature and—most important—*they applied to coercive diplomacy as well as to war.* Environmental factors that conditioned the effectiveness of the Roman army as an instrument of war also determined its utility as an instrument of diplomatic control. The armed suasion generated by Roman military power was most effective against polities with fixed assets to protect, for these were the values that Roman power threatened, if only implicitly. Because the Romans could destroy or appropriate these assets, they could also subjugate their owners without doing either, thus converting them into clients. The conditions for which the training, weaponry, and techniques of the Roman army were most effective, whether for war or for diplomatic coercion in the absence of war, obtained in the North African semidesert, in the uncleared forest lands of central

Europe, in the plains of what is now Ukraine, in the arid plateau of Iran, and in the deserts of Arabia. Roman power could assure control of adjacent arable lands, but to penetrate beyond them was risky.

The Strategic Deployment of Forces

Until Domitian forbade the practice, according to Suetonius,[103] the large-unit structure of the Roman army, organized as it was around legions of roughly 6,000 men, was accentuated still further by the habit of deploying the forces in multilegion camps like Mogontiacum (Mainz), Vetera (Xanten), and Oppidum Obiorum (Cologne) on the Rhine frontier. Because the *auxilia* were with the legions, the forces of the Roman army were concentrated on a few points around the periphery of the empire, leaving little or nothing for the interior and with a very uneven distribution on the perimeter itself. Thus, in 6 CE, twenty-eight legions were distributed this way: four were in Spain, five on the Rhine or beyond, two in Raetia, five in Illyricum, three in Moesia, and nine in the whole of North Africa, Egypt, and Syria.[104]After the ambush of Varus's legion in the year 9, the Spanish garrison was reduced to three legions, the German increased to eight, the Raetian eliminated, the Illyrian left unchanged, and the Moesian reduced to two. One legion remained in North Africa, two in Egypt, and four in Syria. This distribution was maintained until the invasion of Britain in 43 CE, according to Tacitus (*Annals*, 4.5).[105]

Clearly, the uneven development of client states in the East and West had military implications. In the East, where client states were highly developed (and where the Armenian settlement of 20 BCE left a deep buffer zone between Rome and Parthia), Roman security was ensured by a few mediocre legions, powerfully supplemented by the obedience of clients aware of the much greater potential of Roman forces elsewhere. In the West, on the other hand, the day-to-day security of the imperial periphery could only be ensured by an immediate and visible legionary presence. What the sophisticated populations and leaders of the civilized East could readily visualize, Germans and Dacians had to see with their own eyes.

By absorbing the burden of providing internal and perimeter security, the client states of the East allowed the Romans to keep their striking power concentrated—and it was, of course, this same concentrated strength that generated the powerful armed suasion that kept the client states in subjection in the first place. Small though it was, the four-legion garrison in Syria had this quality of concentrated strength that, paradoxically, would have been dissipated

by an attempt at *military* control of the vast territories of Asia Minor. Moreover, with Parthia to the east still the only great power on Rome's horizon, a dispersion of strength would have entailed grave dangers. It is in this light that the deployment policy of the period must be seen. Both the lack of central reserves and the chosen deployment of the legions on the perimeter must be viewed from the perspective of a security structure that was still anchored in the complex, fragile, but supremely efficient client system. There *was* a strategic reserve, but it was deployed on the line. Located near zones of expected threat or opportunity (i.e., opportunity for conquest), the legions at this time were not actually committed to the territorial defense of their segment of the perimeter, as was later the case. If a threat materialized in any one sector, forces could ordinarily be withdrawn from the others; there was no real danger that Germans, Dacians, and Parthians would coordinate their attacks on the empire.[106]

Given these political circumstances, the defensive component of the empire's strategy had to cope with two kinds of threats: endemic threats, which were more or less stable in intensity over prolonged periods of time (such as the German threat between 9 CE and the crisis of 69–70), and sporadic threats, which were inherently unpredictable (such as native revolts). It would therefore have been wasteful to retain substantial forces in a central strategic reserve. Such a reserve is preferable to the use of ad hoc forces drawn from the line only if it can be redeployed in time to reinforce sectors under attack, and quick redeployment could rarely be accomplished in the Roman Empire. Where the threat was endemic and stable, it was not the availability of a reserve that was needed, but permanently deployed forces; where the threat was sporadic and unpredictable, reserves could hardly ever hope to arrive on the scene in good time, and the damage was likely to be inflicted very early, in any case. It was much more efficient to keep all forces on or near the perimeter, where their presence was continuously useful either militarily or diplomatically, and not in an interior reserve.

The peculiar geography of the empire—a hollow ring around the Mediterranean—deprived the Romans of the defender's usual advantage, shorter interior lines of communication, except when sea transport was feasible. In the absence of early warning of emerging threats, Roman forces could only march at 2 miles an hour (to cover approximately 20 miles a day) toward an enemy whose offensive was already under way. This limitation meant that a strategic reserve could not make a great deal of difference, for it would not matter much if enemy incursions in imperial territory lasted one month rather than two; with or

without a centralized reserve, the Roman response could rarely be rapid enough to reinforce a sector while it was still successfully containing enemy attacks.

The system also entailed additional risks. For one thing, there was always the possibility that major threats—even if uncoordinated—would materialize simultaneously on different segments of the perimeter. Moreover, there was one danger that was more than a contingency: when legions were withdrawn from one sector to meet a threat in another, or to gather offensive forces for a campaign of conquest, unsubdued provincial populations and enemies beyond the border were liable to seize the opportunity to rebel against Roman rule or to raid imperial territory. This was more than a contingency since there was obviously a causal relationship between the removal of Roman troops from a given sector and the emergence of threats previously latent. And there was the further risk of a chain reaction, such as that which materialized in 6 CE. In that year, the Pannonian revolt broke out when Illyricum was stripped of its legions to augment the forces being concentrated for the two-pronged offensive against Maroboduus and for the strategic encirclement of Bohemia. Tiberius, in charge of five legions, had actually crossed the Danube on his northwest line of advance from Carnuntum, some 50 kilometers east of today's Vienna. This was to be the southern pincer of the operation; a second pincer was to advance eastward from Mainz (on the Rhine), and the two armies were to meet on the Elbe. As many as 150,000 troops were involved in this vast operation if Tacitus (*Annals*, 2.46, 11.16) and Velleius Paterculus (2.109) do not mislead. It was then that the revolt broke out.[107]

The small Roman force left at the base of Siscia (now Sisak in Croatia) was besieged by the rebels, who seem to have gained control of most of the province. The provincial legate of Moesia, A. Caecina Severus, who was bringing his forces north to join Tiberius for the planned offensive against Maroboduus, instead set out to quell the revolt. But the Danubian frontier of his own province had now been stripped of its two legions, and Dacian raiders crossed the river and penetrated Moesia. Just as Tiberius was forced to cancel the invasion of Bohemia in order to return to fight in Illyricum, so Severus was forced to cut short his own rescue effort in order to return to Moesia. In the end, it took three years and all the forces the Romans could muster to subdue Illyricum. In the year 8 there may have been more than 100,000 troops engaged in suppressing the revolt: 10 legions, 70 cohorts of auxiliary foot, 10 cavalry *alae*, and

large forces of irregulars, primarily Thracian cavalry supplied by Rhoemet-
alces I, client king of Thrace.[108]

Viewed in the context of the sporadic and widely separated threats the Ro-
mans had to face, the chain reaction brought about by the planned offensive
against Maroboduus was an exception, even if an important one. The normal
experience of the early principate was the successful maintenance of imperial
security on a very narrow and very economical base of military power.

Conclusion

Under the republic, the Romans generally solved the security problems of
their growing empire by further expansion, but this expansion was mostly he-
gemonic rather than territorial. The usual outcome of Roman wars and Ro-
man victories was a minimum of territorial aggrandizement and an altogether
more far-reaching extension of Rome's diplomatic control by means of the cli-
ent system. In the late republic, however, new policies were formed by new
forces in Roman political life, and the rhythm of territorial expansion acceler-
ated perceptibly, reaching a climax under Augustus.

Augustus obviously did not practice in his own lifetime what he preached in
his famous posthumous injunction against further conquest, as recorded by
Tacitus (and to which Tacitus strongly objected).[109] Under Augustus's direction,
wars of conquest were fought in every direction, resulting in the annexation of
vast territories: the future provinces of Moesia, Pannonia, Noricum, Raetia, and
Alpes Cottiae and Maritimae. These last annexations were long-overdue secu-
rity measures against the depredations of the Salassi upon transalpine traffic,
but the security motive was less compelling elsewhere. The annexation of man-
ageable and efficient client states was not, however, Augustan policy, except as a
last resort: Judea was annexed in the year 6, but only because no adequate suc-
cessor to Herod was to be found in his family—and Judea was not a province to
be lightly entrusted to one of the entrepreneurial client princes of Asia Minor.

The army economically downsized by Octavian from 60 legions or fragments
of legions after his final victory in 31 BCE remained largely unchanged during
the Julio-Claudian era. The emperors of this period could have used conscrip-
tion to increase the size of the army but declined to do so, confirming their
acceptance of this self-imposed strategic limitation. That is what drove the
empire to continue to exploit the flexible tool of diplomatic control so well known
from the republican era: the client system.

Due to the system's economy of force, the Augustan military establishment was sufficient not only to defend the empire but also to enable some attempts at hegemonic, as opposed to territorial, expansion; at any moment, large troop concentrations could be assembled for wars of conquest by drawing down the forces ordinarily deployed on the line, albeit at some risk. In 6 CE, for example, out of a total legionary establishment of only 28 legions, no fewer than 12 were concentrated for the offensive into Bohemia that was to take Roman power to the Elbe, according to Tacitus in *Annals* (2.46).[110] Admittedly, this 12:28 proportion proved to be too high and entailed grave risks, but the system was undoubtedly highly elastic.

The accepted view is that Augustus's goal, even before the great crises of the years 6–9 in Illyricum and Germany, was limited to the establishment of a "scientific" frontier on the Elbe, which has even been labeled a "Hamburg-Prague-Vienna" line—the sort of anachronism that gives bad historians a bad name.[111] Some scholars have suggested that Augustus set himself no such limit, being still in full pursuit of the Alexandrian—and Roman—dream of world conquest. Perhaps that was so at one point: having set out to conquer the Roman world at age 18, Augustus was not lacking in ambition. But the civil war lasted long enough to dull any warlike spirit, and above all his deliberate decision to maintain a relatively small army was simply inconsistent with any dreams of world conquest—no matter how badly he might have misjudged the distance from Rome to the end of the world. It is true but therefore irrelevant that Roman geographic knowledge was so undeveloped that even the conquest of China could seem feasible: it has been shown convincingly that the distance from the Rhine to the Vistula was believed to be less than the distance from the Pyrenees to the Rhine (636 or 686 Roman miles versus 920), the latter two being thought to be parallel. Similarly, the distance from the Vistula to the ocean on the far side of China was thought to be less than three times the distance from the Pyrenees to the Rhine (i.e., 2,560 or 2,660 miles). Because Julius Caesar had conquered Gaul in 10 years with a force that never exceeded 10 legions, the conquest of all of Germany must have seemed a perfectly feasible proposition—if it were indeed a matter of geographic depth and not of the intensity of resistance, a question answered in 9 CE.[112]

The Augustan system was certainly well suited to support limited offensive action on a particular front while concurrently ensuring the security of the imperial perimeter as a whole, and this flexibility was so employed by Claudius in the conquest of Britain. As long as the empire was facing peoples and cul

tures that were susceptible to the armed suasion that radiated from Rome's power as a whole, and that therefore remained dependable clients that would themselves absorb much of the security burden resulting from past expansion, further expansion remained possible—but only on one front at a time, and not a very wide one. There was only so much that could be conquered with the downsized army of Augustus.

From the Flavians to the Severi

"Scientific" Frontiers and Preclusive Defense
from Vespasian to Marcus Aurelius

When Nero died in 68 CE, another had already claimed his place. But the new emperor, Galba, did not arrive in Rome until October and did not live beyond January 69. M. Salvius Otho, an ex-governor of Lusitania, though in Rome as Galba's follower, procured his murder at the hands of the Praetorians and was acclaimed emperor in turn. By then yet another had risen to claim the office, Aulus Vitellius, governor of Lower Germany and master of its four legions. So far, contention had been resolved through suicide and murder; now there was to be civil war also.

In the two Germanies there were seven legions in all: 40,000 men and at least as many auxiliaries. Vitellius could count on most of them, enough to seize Rome and the imperial power. Otho did not command such power in his own right; no legion was bound to his person, for his former province of Lusitania had none. In Rome there were the Praetorians, 4,500 men at most; a legion of ex-marines newly raised by Nero (I Adiutrix); some detachments from the frontier armies of the Danube; and some auxiliaries. These were not enough; Otho also paid 2,000 gladiators to serve him.

His real hope was the five legions of the Danubian armies and the two legions close at hand in Dalmatia. The men were willing. If the legions on the Rhine had a candidate in Vitellius, the legions on the Danube would have Otho. The cause of Vitellius was denuding the German frontiers, as soldiers were removed to Italy to fight for the imperial power; now the cause of Otho would expose the Danubian frontiers as well. But Otho's plans, and Otho's men, were slow. At Bedriacum near Cremona in northern Italy the two gathering armies met; the more numerous Vitellians won. By April 69, Rome had its third emperor of the year, gross and bloodthirsty, according to the sources, but successful—or so it seemed.

Vitellius had defeated Otho by bold and rapid maneuvers. He was to be defeated in turn by cautious and wide-ranging preparation. When Vitellius entered Rome in July 69, the two legions in Egypt, at the instigation of the prefect-governor, had already proclaimed another emperor, T. Flavius Vespasianus.

Vespasian had been successfully fighting the Jewish War with an army of three legions, supported by auxiliaries and the troops of client states. He had the support of Egypt, Syria, and all the eastern client princes—and their money was as useful as their troops. There was no danger that his rear would be subverted the way his own agents were subverting the West. His son Titus remained in command in Judea, which was still the scene of operations and the power base of the Flavian cause: the fighting legions in Judea could always overawe both Syria and Egypt to keep allegiances firm.

Vespasian remained in Egypt and left the bloody business of civil war to others. His agents fomented unrest among the Batavian auxiliaries on the Rhine to draw and pin down Vitellian legionary troops, and the grain supply from Egypt was cut off—perhaps this alone would force Vitellius to capitulate. In the meantime, 20,000 troops set out from Syria on the long road to Rome. By October 69, Vitellians and Flavians were fighting once again at Bedriacum. The Syrian troops had not yet reached Italy, and Vespasian was still in Egypt, but the Danubian armies, who had lost their Otho, could expect no favors from Vitellius, and they had rallied to the Flavian cause. It was troops from Pannonia who won the second battle of Bedriacum. Horror followed. Those who fought in the name of Vespasian were not controlled by him. Cremona, near the scene of battle, was sacked as if it were a foreign city, and as the wild men from wild Pannonia marched on Rome, disorder followed in their wake. In December 69, Vitellius was killed in Rome, and the Senate voted the imperial powers to Vespasian. He did not enter the city until October 70.

The civil war was to exact one more penalty. To occupy the Vitellian troops in Lower Germany, the formidable Batavians, led by their chief, Civilis, had been instigated to revolt in the name of the Flavian cause. Civilis, client chief of a client tribe, could count on eight auxiliary cohorts manned by his tribesmen in the Roman service, and he augmented their strength with free Germans. By the end of 69 CE, Vitellius was dead, and Romans no longer needed help to fight other Romans. But Civilis continued to fight in his own cause and rallied some Gauls to his side: the rebels spoke of creating a Gallic empire.

Four legions on the Rhine, depleted, starved, and demoralized, were overcome by age or subversion. Civilis had won control of the lower Rhine. But the provincial Gauls on one side of the river did not abandon their Roman allegiance, and the free Germans on the other did not invade the defenseless empire en masse. Both were wise in their restraint. Nine sound legions under sound Flavian commanders moved against the renegade legions and the auxiliaries, leaving their own auxiliaries prudently aside. Such force could not be resisted. The revolt of Civilis was suppressed, but the Rhine

frontier had disintegrated: its troops evacuated or lost, its winter camps burned, and Roman prestige—and Roman deterrence—severely damaged.

Vespasian's dynastic ambition was overt. He had two sons, and he was determined that the empire would be ruled by a Flavian or not at all. His first, Titus, duly followed him in the office after Vespasian died in 79, but Titus died in 81. The younger son, Domitian, succeeded his brother. The sources are kind to the first two Flavians, but not to the third. His power threatened, Domitian reacted with repression. The ancient autocrat lacked the bureaucratic machinery and surveillance technology of the modern dictator, so that repression, while provocative, was not very reliable. In 96 CE, Domitian was murdered.

Between the end of civil war in the year 70 and Domitian's death 26 years later, there had been no spectacular wars of conquest. In Britain, the area of Roman control had been pushed to the north, but the island had not been fully conquered, nor had a settled frontier been established across the narrow neck of land below savage Scotland. In Germany, a Rhine frontier had been systematically reestablished and equally systematically abandoned as Roman control advanced and left the river behind. In a long series of frontier rectification campaigns, roads, camps, and forts were built east of the Rhine and north of the Danube to drive back hostile peoples and to enclose the fertile salient between the rivers. Not recognizable as wars of conquest in the grand manner, the engineering campaigns of the Flavians failed to generate enthusiasm among the sedentary martial spirits in Rome. Domitian's very useful frontier war with the German Chatti in 83 CE was ridiculed by contemporary commentators.

In 85 the well-organized Dacians of the middle Danube, ruled by Decebalus, a formidable figure in our sources, crossed the frontier to attack Moesia. Domitian's subsequent war against the Dacians ended neither in victory and triumph nor in disgrace. There were tactical defeats and tactical victories, but the combination of invasion threats from Germans and Sarmatians upstream from Dacia and the attempted usurpation of L. Antonius Saturninus, governor of Upper Germany, in 89, distracted Domitian from a decisive war against Decebalus, if indeed one had been planned.

Domitian's murder in 96 CE left the office vacant, but no civil war ensued. Equilibrium between the power of the Praetorians and that of legions (which we may infer but cannot prove), or possibly the bitter memories of civil war, left the Senate free to choose the next emperor. Its choice set a pattern. M. Cocceius Nerva was old, unmilitary, respected, and noble, but chiefly old. In the future, whenever rare circumstances left this choice to the Senate, old aristocrats would be chosen, as if the senators wanted to ensure that the privilege of choice could soon be exercised again.

Elderly nobles without military experience or affiliation were generally defenseless against active army commanders with legions at their call, and the Senate's subsequent nominees soon lost their offices and their lives. But Nerva or his advisers were wise. After news of mutiny reached Rome, after unruly Praetorians had publicly humiliated the new emperor, Nerva chose to adopt M. Ulpius Trajanus, a distinguished soldier and popular governor of Upper Germany, as his son and successor. Even before Nerva died in 98, Trajan was the new ruler of the empire. The adoption created the useful fiction of a family succession, an orderly transfer of power that simple soldiers and dynasty-minded provincials could readily accept; the deliberate act was safer than the genetic gamble of natural succession, and the result could be acceptable to the Senate.

Trajan was a soldier, and a good one; wars of conquest were feverishly anticipated, and this time there was no disappointment. A limited war against the Dacians in 101–102 CE resulted in a compromise settlement, but one which marked a victory: Dacia was to be a client state with Decebalus as the client king. But the protagonist did not fit the part. In 105–106 war had to be renewed, for Decebalus was disobedient and Trajan's patience was exhausted. Hard fighting and a great victory followed. A large new Dacian province across the Danube was added to the empire.

But the natural arena for a Roman conqueror was the East. The Armenian settlement had broken down once more: once again an Arsacid occupied the throne of Armenia without the sanction of Rome. Anatolia now had an organized frontier, but with only two legions in Cappadocia and only three in Syria itself and without the geographic depth provided by clients, it could not be a safe frontier. If Parthian forces could assemble freely in Armenia they might strike with greater force either due west or due south at their choosing, and to the south was Syria, a core province of the empire. Both strategic necessity and personal ambition required war. Between 114 and 117 Trajan's army conquered not merely Armenia but much of Mesopotamia down to the Parthian capital of Ctesiphon. Trajan conquered more than any ruler of Rome since Augustus. Then came disaster. Insurrection in the rear and a Parthian counteroffensive from the hinterland of Iran forced the rapid evacuation of all the conquered lands. Trajan did not outlive his ultimate defeat. In 117 he fell ill and died in Cilicia, on his way back to Rome.

P. Aelius Hadrianus, Trajan's adopted successor, followed a policy of consolidation, not conquest. Dacia was retained, but all the eastern conquests were abandoned. Hadrian continued the chain of adoptions with Antoninus Pius (r. 138–161), who in turn adopted two co-emperors, Lucius Verus (r. 161–169) and Marcus Aurelius (r. 161–180). The Antonine era, as it became known, was a period of stability and consolidation, of

frontiers and systematized *defenses; it was the climax of imperial success, the* *result of a sequence of good and long-lived emperors and favorable circumstances. Having* *weathered the great crisis of 69—when it had seemed on the verge of dissolution—the* *empire of the Flavians, Trajan, Hadrian, and the Antonines had seemingly achieved a* *system of everlasting security, a pax Roman and eternal. By the later years of the* *great stoic emperor Marcus Aurelius, however, wars, invasions, and the plague would* *shatter the Antonine peace. From then until the end, with only relatively brief intervals* *of respite, the survival of the empire was to be a bitter struggle.*

The System in Outline

The most characteristic device of the Roman art of war under the republic and early principate was the marching camp. At the conclusion of each day's march, legionary troops on the move were assembled at a site, which had been carefully selected in advance, where they were put to work for three hours or more to dig a perimeter obstacle ditch, erect a rampart, assemble a palisade with prefabricated elements (*pila muralia*),[1] and pitch tents. Although archaeological evidence shows a wide variety of perimeters in the surviving sites,[2] the internal layout apparently followed a standard scheme: tent sites were neatly grouped by units around a broad T-shaped roadway at the center of the camp, which faced the headquarters area, and a broad gap was left between the inner edge of the rampart and the first line of tents.[3]

Modern commentators often point out that the strength of the camp defenses was not commensurate with the elaborate effort needed to build them after a day on the march.[4] The strategic mobility of Roman forces was undoubtedly reduced by this tiring and time-consuming camp-building routine, because Roman troops seemingly marched from a "very early breakfast" to midday, with the remainder of the day given over to camp building and rest.[5] However, though the flimsy palisade made of portable two-pointed stakes, the shallow ditch three Roman feet deep, and the rampart only six feet high would not do much to stem a major assault, it would be a mistake to underestimate the tactical utility of standard marching camp defenses. According to the highly technical, and highly credible rather than aspirational, fortification manual *Liber de munitionibus castrorum*:

> In a more secure place, the ditch is used for the sake of discipline, and the types
> are V-shaped or Punic. It is called V-shaped when the sides, sloping in from the
> top at the same angle and becoming narrower, reach the bottom. A ditch is Pu

nic when the outer side is laid out vertical; the other side is inclined as in the V-shaped. They should be at least five feet wide and three feet deep. A similar ditch should be dug sixty feet in front of the gateway, and the same width as the gate. Because of its shortness, it is known as a titulum. . . . In less secure places a rampart of turf, stone, rocks, or rubble should be thrown up. Eight feet wide and six feet wide will suffice, and a little parapet. There should also be a rampart before the gates along the titulum as along the ditches; because of the construction it is known as sanctum.[6]

Fossa loco securiori causa disciplinae, cuius species est fasigata vel punica. Fastigata dicitur, quae a summa latitudine lateribus devexis in angustiam ad solum coniuncta pervenit. Punica dicitur, quae latere exteriori ad perpendiculum dirigitur; contrarium devexum fit, quomodo in fastigata. Quibus latitudo dari debeat ad minimum pedum quinque; altum pedes tres. Regressis pedibus exterius sexaginta per latitudinem portarum similiter fossa fiet, quod propter brevitatem titulum cognominatum est. Vallum loco suspectiori extrui debet cespite aut lapide, saxo sive caemento. Sufficit latum pedes VIII, altum pedes VI; et lorica parva fit similiter ante portas, ut titulum ad fossam, ad vallum. Causa instructionis sanctum est cognominatum.

Even modest earthworks (especially with pointed stakes) would be sufficient to break the impetus of a cavalry charge; indeed, no cavalry would normally attempt to charge against such obstacles. Furthermore, the margin of 60 Roman feet of the *Liber de munitionibus castrorum*, 50 between the outer perimeter and the first line of tents on the inside, would afford considerable protection against arrows or throwing spears. Moreover, the broad roadways would ensure that if the camp came under attack, the troops could be mustered in an orderly manner, avoiding the certain confusion and possible panic easily caused by men rushing about in a small space strewn with impedimenta.

Nevertheless, modern commentators are undoubtedly right in stressing the tactical shortcomings of the camp defenses. It was certainly no part of Roman practice to man a beleaguered camp in the manner of a fortress: once assembled, the troops would march out to fight the enemy in the open, where the shock force of disciplined infantry could be brought to bear with full effect. (Only auxiliaries armed with missile weapons could fight at all usefully from behind the camp fence.) But it was the *nontactical* functions that made the Roman marching camp much more than a mere defensive perimeter and that gave it "a degree of importance without parallel in modern warfare." The marching camp was, in effect, a powerful psychological device.

For troops venturing into hostile territory and possibly exotic surroundings, the familiar context of the camp defenses would provide a welcome sense of security. With stray natives and wild beasts firmly separated from the soldiers' immediate vicinity by ditch, rampart, and palisade, the troops could wash, care for their equipment, converse, and play in a relaxed atmosphere. This same sense of security would allow them to sleep soundly and so be fit for march or battle on the next day. Thus, the physical brutalization and cumulative exhaustion of troops living in field conditions would be mitigated by a nightly opportunity for recuperation.

The marching camp was also a labor-saving device. It is true that much labor was needed to build it, but once the camp was ready for the night, the protected perimeter would allow a proper watch with a minimum of men. A standard objective of night operations is to deny sleep to the enemy; even if little damage is inflicted, noisy hit-and-run attacks night after night can cause a progressive deterioration in the physical and mental condition of the troops under attack, partly by forcing more and more men to be assigned to guard duties at the expense of sleep. Here again the marching camp was of great value in preserving the energies of the troops, since, if our source is reliable, only 16 men in each 80-man legionary century were posted to guard and picket duties for the night watch at any one time.[9] (Only those who have been in combat can truly appreciate the *military* value of sleep.)

It is sometimes claimed that the marching camp also provided an element of tactical insurance, because if Roman troops were defeated in the field they could take refuge in the camp and prepare to fight another day.[10] But this could only be so if the defeated troops had an intact marching camp within easy reach, which was unlikely: it was standard practice to slight the defenses once the site was left. In a more subtle sense, however, the observation has merit. Nothing is more difficult than canalizing defeat into an orderly retreat to avoid a rout. The campsite could provide a natural rallying point and a ready-made framework for redeployment. The Roman marching camp thus combined the tactical advantages of a bivouac with the convenience of billets,[11] and had the added benefit of a guarded perimeter that could always be turned into a heavily fortified earthwork, given more time and labor. The characteristically Roman institution of the marching camp was a crucial factor in the strength of an army whose significant quality was an exceptional resilience under stress.

The security policies of Vespasian and his successors, which reached a logical culmination under Hadrian and his successors, may be seen as an attempt

to transform the empire into a marching camp writ large. The metaphor is perfectly applicable: the border defenses created under their policies, just like those of the marching camp, were intended to serve not as total barriers but rather as the one fixed element in a mobile strategy of imperial defense.

The first step was the demarcation of imperial frontiers. Although major natural barriers had in some cases provided reasonably clear borders for the Julio-Claudian empire, in many places its borders would have been difficult to determine with any precision. One modern scholar noted the lack of identified boundary stones and went on to infer that the very notion of an imperial frontier did not exist—an extreme case of positivist historiographical discipline.[12]

While it is certainly true that the Roman borders were different from today's, that is ultimately so only because our borders presume an accepted political entity on the far side, a status that sets rigid limits on each side's sphere of control if not influence. The Romans often faced no symmetrical power or administrative presence on the far side of their own border, and could freely project their influence beyond it. Hence beyond provincial territory under direct military control, there was a further zone of political control, and the latter in turn gave way to areas of greater, and then lesser, influence. One modern historian deems this much too subtle for mere Romans, but then that same historian insists that they were (all?) simple-minded glory hounds and looters, conceding nothing to the evidence of large-scale thinking.[13]

Where no ocean or broad desert gave visible definition to the limits of empire, only an exercise in subjective political judgment could determine just where the sphere of imperial control finally came to an end. An understandable psychic satisfaction could be derived from claiming some vague form of sovereignty over remote peoples whom Rome did not really control, and these empty claims are not always easy to distinguish from the genuine client relationships that broadened the real scope of imperial power so considerably. Again, some modern historians view the Romans as sufficiently delusional to think that the entire world was already theirs.[14] But that inflates the scope of their boastings, even if Augustan bombast did claim the allegiance of India (*Res Gestae*, 31). But false claims of suzerainty were paired with very similar claims that were altogether more valid, as in the case of Juba's Mauretania or Herod's Judea.

All this had changed by the time Hadrian was done with his frontier fortifications. The limits of empire were demarcated on the ground, so that all could tell exactly what was Roman and what was not, even if there were no boundary

ANTONINE WALL
HADRIAN'S WALL
BRITANNIA
LOWER GERMANY
BELGICA
UPPER GERMANY
ANTONINE FRON
LUGDUNENSIS
RAETIA
NORICUM
UPPER PANNON
AQUITANIA
ALPES
NARBONENSIS
D
ITALY
TARRACONENSIS
CORSICA
LUSITANIA
SARDINIA
BAETICA
MEDITERRANE
SICILIA
TINGITANA
MAURETANIA
CAESARIENSIS
NUMIDIA
FOSSATUM AFRICAE IN NUMIDIA
AFRICA

LEGEND

- - - - — OPEN LAND FRONTIERS
▪▪▪▪▪ — ARTIFICIAL FRONTIER (WALLS, PALISADES, FENCES)
...... — RIVER FRONTIER
—·— — PROVINCIAL BOUNDARY

LIMES
POROLISSENSIS

...IAE

LOWER MOESIA

BLACK SEA

THRACIA

PONTUS ET BITHYNIA

ARMENIA

CAPPADOCIA

GALATIA

ASIA

PARTHIA

LYCIA
ET
PAMPHYLIA

CILICIA

...HAEA

SYRIA

CYPRUS

CRETE

SYRIA
PALAESTINA

SEA

ARABIA

CYRENE

EGYPT

RED SEA
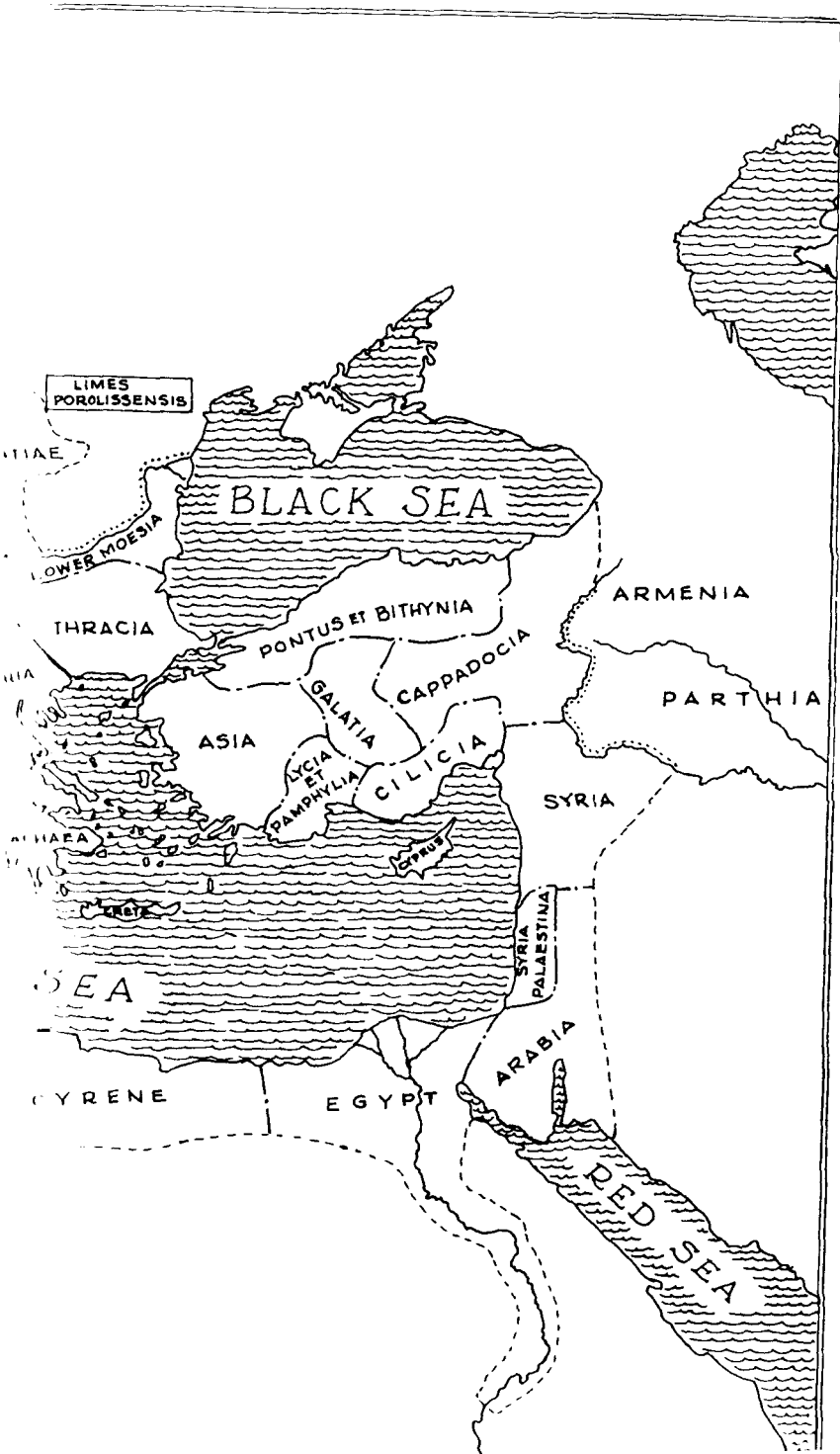
stones as such.[15] Almost all the client states had been absorbed, and with several significant exceptions that illuminate the purpose of the rest, the land borders of the empire were secured by perimeter infrastructures that complemented the natural barriers of rivers and ocean.

The invisible borders of imperial power had given way in many places to physical frontier defenses: in Britain, the complex of fortifications known as Hadrian's Wall (it was much more than a wall) defined Roman territory from sea to sea on the Tyne-Solway line. In Germany, a less elaborate trench-and-palisade construction, or fence barrier, cut across the base of the salient formed by the converging upstream courses of the Rhine and Danube, with the frontier running along the inner bank of each. In North Africa, segments of a trench-and-wall system, the Fossatum Africae, have been identified over a distance of 750 kilometers along the edge of the Sahara in modern Algeria. In the Dobruja of modern Romania, a continuous wall of less certain attribution formed a short perimeter from Axiopolis (Rasova) on the Danube to the sea at Tomis (near Constanța). This is a typical "scientific" frontier and may have been the first continuous perimeter of imperial times—if it was indeed built under Domitian.[16]

No such continuous wall systems have been identified on the long eastern borders of the empire in Asia, from the Black Sea to the Red, with one interesting exception: a 15-mile double ditch and wall in northern Mesopotamia that closes a gap between the natural defenses of the Khabur River to the west and the high ground of the Jebel Sinjar to the east, thus blocking off an otherwise easy access route to the key city of Nisibis from the south.[17] But no evidence has come to light indicating an eastward extension of the Fossatum Africae of Numidia into Tripolitania, Cyrenaica, or Egypt (or westward to Mauretania). As we shall see, the sections of the limes (here in the meaning of a defended border) that remained "open" illuminate the true military purpose of those that *were* provided with an unbroken perimeter barrier. For the absence of such barriers does not mean that there was no limes (in the sense of a linear perimeter): the essential element of the limes was not the wall, palisade, or fence, but rather the network of roads linking the frontier garrisons with one another and the frontier zone as a whole with the interior.[18] One modern scholar made a name for himself by rejecting the entire notion that the limes was a defended frontier,[19] as opposed to its original meaning as a road network, and a mere demarcation if that; but in addition to long stretches of elaborately defended frontiers revealed by archaeology, there is also direct narrative evidence.[20]

The transition to the second system of perimeter defenses was neither abrupt nor universally applied. Under successive emperors from Vespasian onward, the Romans reacted to local conditions by reinforcing particular segments of the perimeter that happened to concern them at the time. Under Vespasian they dismantled the last client states in the East; under Domitian they enclosed what is now the Wetterau of Germany, a salient beyond the Rhine; under Trajan they annexed Dacia and campaigned against the Parthians; and under Hadrian they consolidated provinces and built his famous wall across the narrow neck of northernmost England. These emperors did not decide to abandon the client system as a tool of diplomatic control, but it is clear that they saw it as much too fragile to defend imperial security reliably.

We can discern a definite pattern in Roman strategic behavior under successive emperors, different as it was: an increasing reliance on military forces and military infrastructure for territorial security. It would be on them, rather than on client rulers, that the Romans would increasingly rely to defend their empire.

Border Defense: The Tactical Dimension

The growing reliance on a perimeter defense under the Flavians required an investment of colossal proportions that continued over the next three centuries. On every segment of the limes, whether provided with a continuous barrier or not, road networks, forts large and small, and towers for observation and signaling were built and repeatedly rebuilt according to changing schemes of defense and changes in regional priorities, and in response to variations in the nature of the threat. Thanks to the devoted labors of generations of archaeologists, the physical elements of Roman frontier policy have been uncovered in a coherent, if incomplete, manner (there are many known sites not yet excavated). But while the archaeological, epigraphic, numismatic, and literary evidence has been augmented and assiduously collated by these labors, the meaning and purpose of Roman frontier defense during this phase of imperial strategy remain controversial.

The Romans are not otherwise held to have been irrational or timid, yet the fixed defenses built by them are often said to have been both useless and demoralizing,[21] owing to the supposedly fatal "Maginot Line mentality" that the mere presence of these fixed defenses allegedly engendered.[22] These judgments reflect not only an awareness of the eventual third-century breakdown of the system, but also a seemingly ineradicable prejudice against defensive

. . . . fortifications—a prejudice as common among histori-
. . . . Hadrian and his policies as among contemporary military ana-
. . . . ballistic missile defenses. To that purpose, Clausewitz
. . . . . . presented.[5]

The most common fallacy contained in such analyses is to evaluate defen-
. . . . . . in absolute terms. If a defense *can* be penetrated anywhere, at any
. . . . . and to be "useless," and only an impenetrable defense is conceded to
be of value. This appraisal is highly misleading: its equivalent for the offense
would be to regard as useless any offensive system that cannot prevail against
all forms of resistance, under all circumstances. Defensive systems, as with
anything else except love perhaps, must be evaluated in relative terms: their
cost in resources should be compared to their military "output," which is more
varied than just preclusion or penetration. Further, the value of any defensive
system must be assessed in terms of the type of threat it is intended to counter.
One system may be most effective against low-intensity threats (infiltration,
hit-and-run raids, etc.), another against the maximal threat of invasion. Each
should be evaluated accordingly, for defensive systems are normally intended
to provide a *finite* barrier only against a particular kind of threat, while other-
wise absorbing, or deflecting, or at least filtering threats of greater or lesser in
intensity than those against which the system is designed.

Roman frontier defenses in sectors provided with linear barriers, whether
in the form of walls, palisades, fences, or earthworks, were mostly designed to
provide security against low-intensity threats—primarily transborder infiltra-
tion and limited incursions. These barriers were certainly *not* intended to provide
a total defense against large-scale attacks. Instead, both types of limes, whether
"open" or "closed" (i.e., provided with continuous barriers), served as baselines
for mobile striking forces, which were to repel or pursue and chase out any
large-scale attacks by fighting in a tactically offensive manner, albeit within
the framework of a defensive strategy. While minor, endemic threats were
countered by the small guard forces that manned the fixed defenses, more seri-
ous threats were met by concentrated mobile forces held in the nearby rear but
ready to move forward to intercept invaders or to launch spoiling attacks across
the border against enemies gathering to invade.

During this phase of the empire, the operational method of border defense
against high-intensity threats was therefore mobile and offensive, not static
and defensive: combat was to take place *beyond* the border rather than within it.
In other words, the complex of fixed defenses built along the limes served only

as a *supporting infrastructure* for offensive operations in the event of major attacks, and it should be evaluated as such. There was no question, at that time, of using the frontier defense infrastructures to shelter the garrisons serving on the sector. To validate these statements, we must first set the barrier elements: walls, palisades, fences, and earthworks, in the context of the other components of the overall defense systems which were present in every tract of the frontier, whether open or closed.[24]

Watchtowers and outpost forts. Their function was to provide surveillance against infiltration and early warning of impending large-scale attacks. Watchtowers were usually built directly into the barrier element, if there was one, as in the case of the turrets spaced at intervals of 540 feet along Hadrian's Wall in Britain. These provided dense surveillance coverage, but little in the way of early warning.[25]

Outpost forts, on the other hand, were located well beyond the border. Such forts have been identified on the major routes north of Hadrian's Wall, and three of them (Birrens, Netherby, and Bewcastle) have been given a securely Hadrianic dating.[26] In the case of the Fossatum Africae in modern Algeria, the dating of the elements in the system is less certain, but an outer zone of surveillance and active defense has been identified with reasonable certainty to a depth of 60–80 kilometers beyond the borderline.[27]

Communications. This second functional element, partly based on the same physical structures, was a two-way signaling system that connected the outposts and surveillance towers with the auxiliary forts in the rear and with the legionary fortresses of the sector, the latter sometimes located deep in the rear. Communications, by fire and smoke signals, required that perimeter forts or towers have a clear view to the rear, though not necessarily to either side.[28] (It has been observed that on the Antonine Wall in Scotland, where the irregularities of the ground sometimes preclude a line-of-sight alignment, semicircular extensions of the wall appear to have served as the bases of signaling towers.)[29] A communication network is present even where there is no trace of a perimeter barrier: a scene on Trajan's column shows a regular pattern of signaling stations along the Danube, where there was no wall or other barrier.[30] In Britain, where the two legionary fortresses York-Eburacum and Chester-Deva remained over 100 and 140 miles, respectively, behind Hadrian's Wall, a vertical axis of signaling towers has been identified linking the Carlisle sector of Hadrian's Wall with the fortress of the legion VI Victrix at York.[31]

LOW INTENSITY THREAT - DESERT FRONTIER

LEGEND
- [O] FORTIFIED TOWN WITH SELF DEFENSE MILITIA
- •W LOCALIZED WATER SUPPLY
- ~ LOCALLY DEVELOPED ROADS

NOTE: No LEGIONS AND NO WALL SYSTEM.

HIGH INTENSITY THREAT - DESERT FRONTIER
(I.E., SYRIA)

SCALE OF MILES
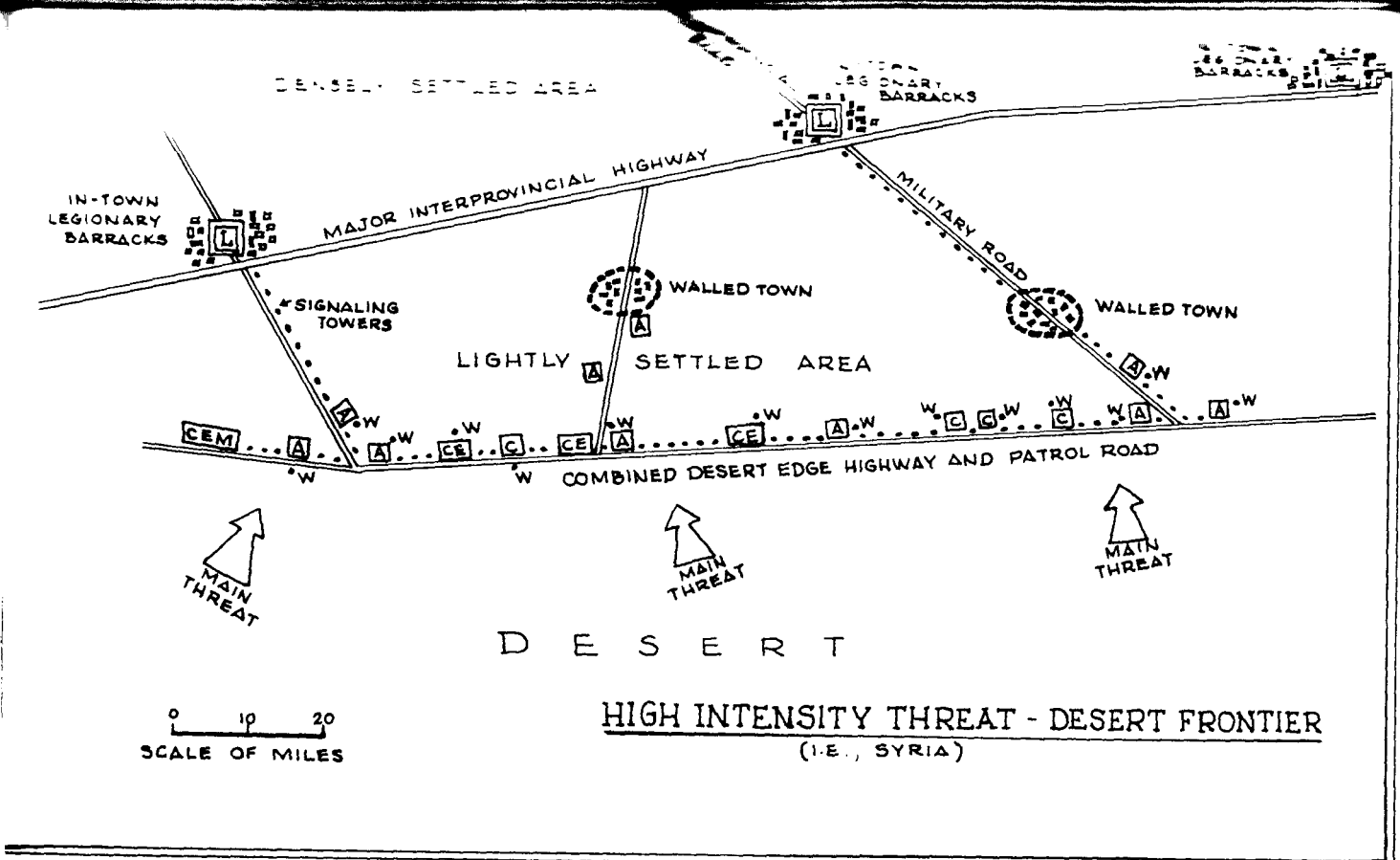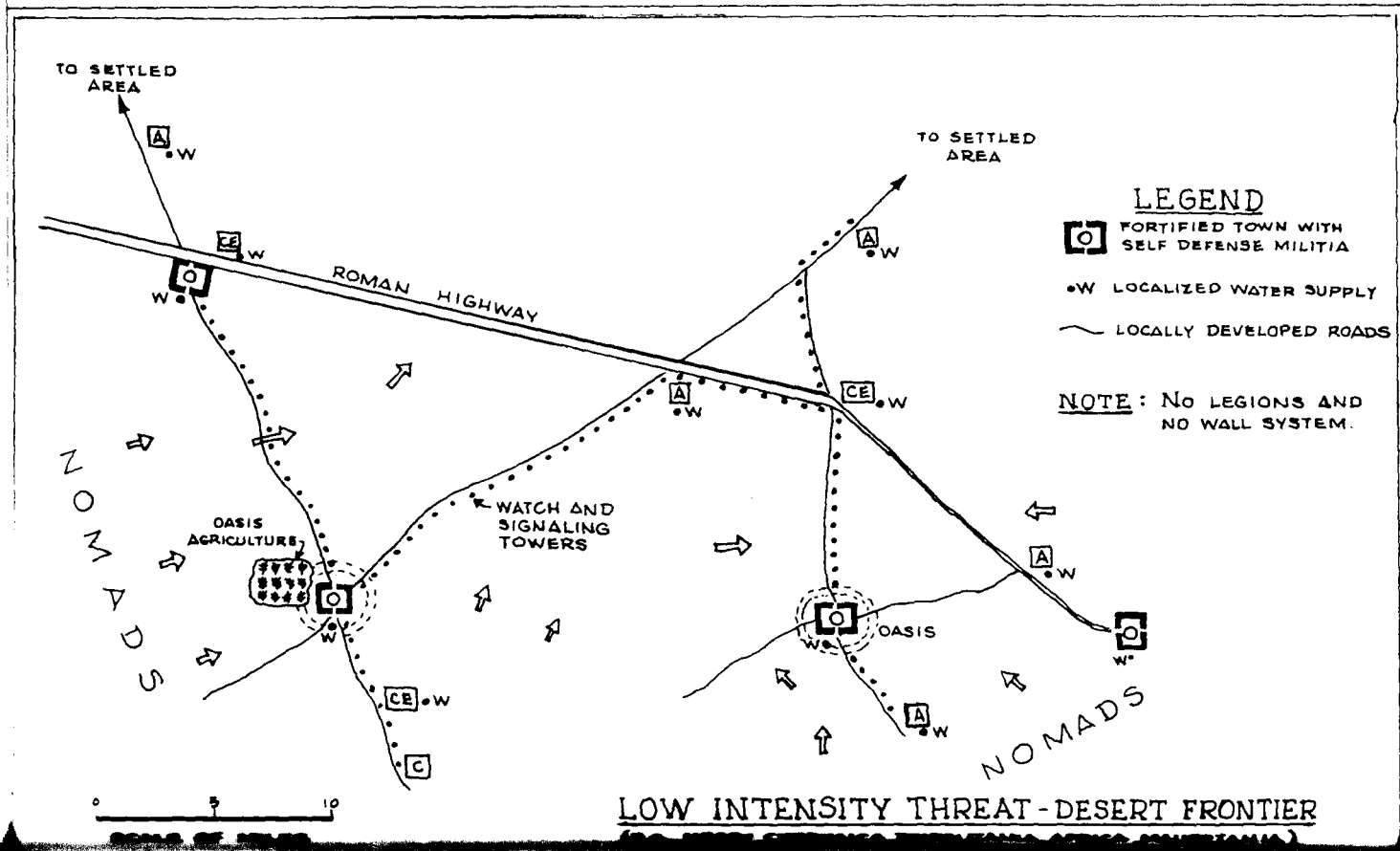
FIG. 2.1. Models of Frontier Organization I

LEGEND
- LEGION
- CAVALRY ALA
- INFANTRY COHORT
- MIXED COHORT
- NUMERUS

PATROL BOAT

GUARD POST
FERRY BOATS
WATCHTOWER
PATROL BOAT

PATROL TRACK

MAJOR INTERPROVINCIAL HIGHWAY

ROAD TO INTERIOR

NATIVE SETTLEMENT AROUND LEGIONARY BASE (VICUS)
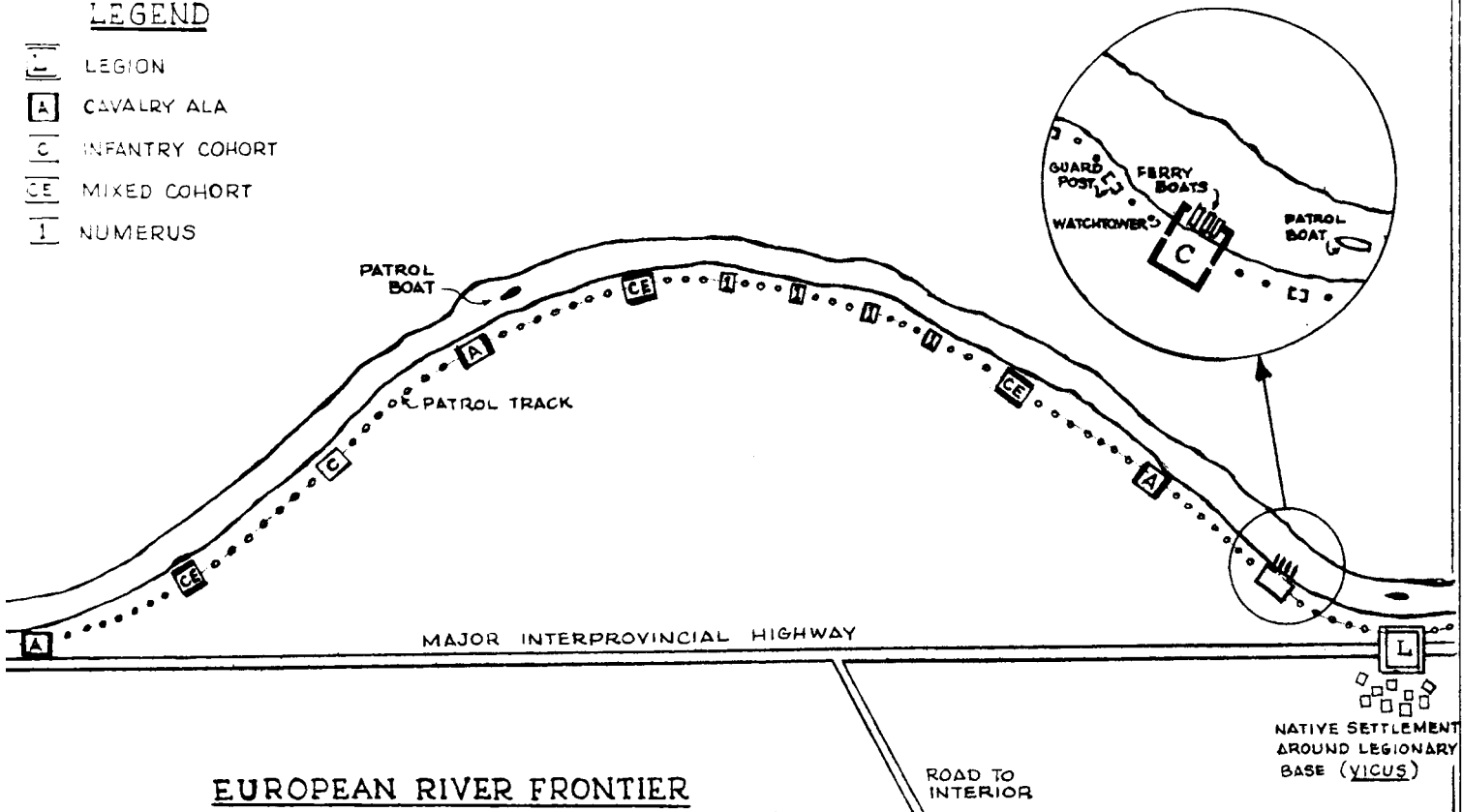
EUROPEAN RIVER FRONTIER

OUTPOST FORTS
(COHORTS +)

WALL, PALISADE OR FENCE WITH OBSTACLE TRENCH.
GUARD POSTS EACH MILE ±
WATCHTOWERS EACH 1/3 MILE ±

PATROL TRACK

SEA OR RESUMPTION OF RIVER FRONTIER

LONG RANGE SIGNALING WITH CHAIN OF SMOKE/FIRE TOWERS.

MAJOR INTERPROVINCIAL HIGHWAY

LEGEND
- LEGION
- CAVALRY ALA
- INFANTRY COHORT
- MIXED COHORT
- NUMERUS
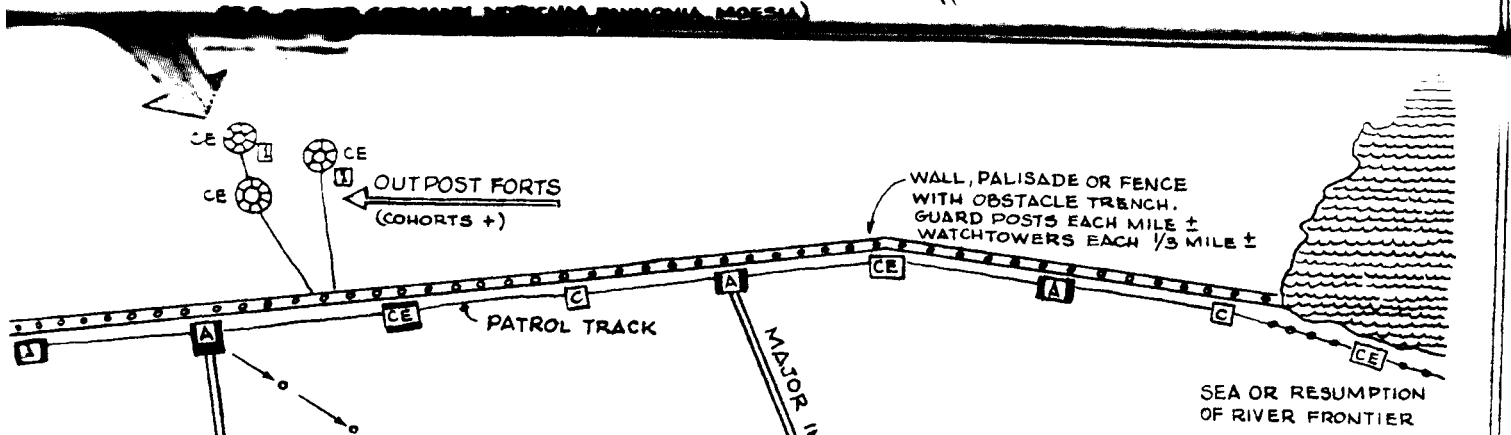
EUROPEAN LAND FRONTIER
(E.G., BRITAIN, UPPER GERMANY, RAETIA, DACIA)

Models of Frontier Organization II

Garrisons and operational reserves. The third indispensable element in the system was the guards, patrol units, auxiliary forces, and—though not always—legions, which were housed in an ascending hierarchy of guardposts, auxiliary forts, and legionary fortresses. The latter term is used conventionally to describe legionary bases, but during this phase of empire no elaborate defenses were built around the complex of barracks and service buildings that made up each legionary "fortress."

Roads. They were the essential elements of the system: each defended sector was served by a network of "horizontal" and "vertical" roads, the latter providing axes of penetration beyond the border as well as rearward routes for communication, reinforcement, troop circulation, and supply. Where the limes was not guarded by linear barriers as, most importantly, on the Syrian frontier, horizontal perimeter roads also served as patrol routes against infiltration and small-scale incursions.[32]

When the outer lines of the perimeter were shorter than the inner ones, as was the case with the trans-Danubian limes of Raetia, the horizontal frontier roads also served as interprovincial highways. Based as it was on the rapid concentration of mobile forces, the frontier defense of this phase of empire was critically dependent on the density and quality of the road network. Characteristically, the first step in the Flavian reorganization of the frontiers of eastern Anatolia was the construction of west-east vertical highways, linking the approaches to the frontier zone with western Anatolia.[33]

However impressive they are in their conceptualized totality, however impressive are their visible survivals (destined to grow as excavation continues),[34] the physical elements of Roman limites were only the skeleton of the system. They did not delimit its scope, which comprised "the whole moving complex of patrolling, trafficking, and diplomacy which grew up around these structural lines and . . . extended far beyond the areas covered by them."[35]

Their layout makes it quite clear that the walls, palisades, fences, or earthworks that formed the linear barriers in Europe and Numidia during this phase of the empire were *not* intended to provide fighting platforms in the manner of medieval castle walls. For one thing, their physical design would have precluded such use. In the case of Hadrian's Wall, for example, the rampart walk was no more than 6 feet wide, too narrow to be a satisfactory fighting platform. The thickness of the wall (and therefore the rampart walk minus the parapet) varied from as little as 5 feet 6 inches to a maximum of 10 feet.[36] Moreover, in the case of the palisades, fences, and walls of Upper Germany and Raetia, as

well as in the "curtain" element of the Fossatum Africae, there was no rampart or parapet at all. Therefore, while these structures were useful elements of the security apparatus against infiltration, they were not meant to defend against serious threats—those threats were to be defeated by attacking, not by defending.

The obvious unsuitability of the linear barriers as fighting platforms against large-scale attacks has sometimes resulted in description of them as merely "symbolic."[37] If that were so, it would diminish their function to mere boundary markers, making their entire construction hugely wasteful and wildly irrational, given the vast and prolonged efforts needed to build them. But that is not a possible reality. Roman linear barriers, by no means the first known to antiquity,[38] had at least two separate tactical functions.

First, they enhanced the reliability of surveillance and decreased the quantity of manpower needed for protection against low-intensity threats, notably infiltration. By presenting an obstacle that could be crossed, but not effortlessly or quickly, the walls, palisades, or fences increased the effectiveness of surveillance, especially at night when the visual observation range of the sentries in their turrets or watchtowers would be drastically reduced. The barriers also provided security for small patrols by posing an effective obstacle to ambush; this meant that the size of patrol units could safely be kept very small.

It has been argued that even such elaborate military fortifications as those comprising Hadrian's Wall served primarily an economic rather than a security function.[39] That view focuses narrowly on the frontier zones solely as areas of intense commercial activity, as they undoubtedly were. But that narrow view prevents any proper understanding of the role of such frontier defenses. To note that the purpose of Hadrian's Wall was "to control movement, not to prevent it" means nothing at all,[40] because it is impossible to control movements without an ability to restrict them, or simply stop them and then repel an attack if necessary. The Roman frontier structures of this period must be seen within the wider context of the security apparatus as a whole (as should be obvious to ... an apparatus designed to be both relatively permeable for innocent transborder traffic when the threat level was low and highly impermeable to infiltrators and raiders when the threat level was higher.

The second tactical function of the linear barriers was aimed at much more serious threats, such as mass incursions by mounted raiders or even outright invasions. For cavalry forces, the barriers were certainly formidable: Hadrian's Wall was fronted by a V-shaped ditch 30 feet wide and at least 9 feet deep,

beyond the ditch and past a berm from 6 to 20 feet wide stood the wall, 20 feet high including the parapet.[41] The palisades and fences of Upper Germany and Raetia were generally lower (12–13 feet), while the reconstructed segments of the Fossatum Africae show a wide degree of variance: the obstacle ditch ranged from 4 to 6 meters wide and 2.3 to 3.4 meters deep, and the wall from 2 to 2.5 meters high.[42]

It might appear that the low wall of the Fossatum Africae, not much higher than a reasonably tall man, would not present much of an obstacle to marauders—and some of the reductionists, who see no strategy at all in Roman doings and undoings, of course deny that it had any military function at all,[43] even denying the need for it. But as one notable expert explained, there was indeed a need to keep out nomads: "drought, cattle disease or pressure of other tribes from behind often formed a vital compulsion to transgress from desert and semi-desert into the town. This implies the need for a permanent guard."[44]

Actually, as any horseman well knows, no wall or ditch is lightly jumped over in a gallop—let alone a wall plus ditch combination such as the *fossatum* was, reminiscent of the hedge and ha-ha combinations that make British-style fox hunting, however fox-less, an excellent preparation for dangerous combat. And contemporary narrative sources concur that even a relatively shallow ditch and a low wall could discourage mounted raiders, by taking away their ability to swiftly storm defenses.[45] Instead of being able to ride into settled areas at will, relying on surprise and the resulting shock effect to defeat resistance quickly, raiders would be forced to dismount in order to breach the wall and fill in the ditch, so that their mounts could pass. And once inside the barrier, the raiders could not be certain of a rapid exit—unless they returned to the original entry point. By posting a detachment to close the original breach and sending patrols to locate the raiding party, the defenders could trap the raiders inside the perimeter, counting on the barrier to slow down their escape. The principal tactical problem in countering such threats was always the elusiveness of the enemy, and even if wall systems could not keep them out, they could certainly help to keep them in.[46]

An interesting case in point is the vallum (the Venerable Bede's misnomer; *Historia*, 1.12) on the inner side of the Hadrian Wall complex, which consisted of a flat-bottomed trench 20 feet wide at the top, 8 feet wide at the bottom, and 10 feet deep, the whole set between 6-foot-high ramparts formed by the upcast. Together with the berms, the width of the vallum as a complete earth work amounted to 120 feet, a Roman actus.[47] So long as it was believed that

this uniquely elaborate barrier had preceded the wall, it could be explained as
a wall substitute, if a poor one. But once archaeological evidence proved that the
digging of the vallum was concurrent with the erection of the wall, or came
after it,[48] there was much explaining to do.

Obviously it was useless as a second line of defense: troops forced off the
wall would only make themselves more vulnerable if they descended into the
vallum. One old speculation that fits the modern reductionist fashion explained
the vallum as the limit of civil jurisdiction, just ahead of the military zone of
Hadrian's Wall, with the further embellishment of identifying it as a customs
barrier under procuratorial control. But because the vallum is generally located
so that it can be observed from the wall turrets, such a large construction effort
is simply too implausible for that minor jurisdictional purpose.

Attempts have been made to relate the linear elements of frontier systems to
tactics of border defense against high-intensity threats also, but these have not
been very convincing. All linear defenses necessarily work best against low-
intensity threats; they could not be of much use in fighting enemy concentra-
tions, which were to be intercepted not by guards or patrols but by substantial
forces, and well beyond the curtain whenever possible. Against a large-scale
attack, the walls, palisades, fences, or perimeter roads (e.g., on the Syrian limes)
were not the first line of defense, but rather the last.

Actually the structures of Hadrian's Wall as originally built are eloquent
testimony to the underlying tactical scheme: the forts built along the wall
were provided with three twin portal gates, the last opening on the far side of
the curtain, and it is obvious that those gates were to serve as sally ports for a
mobile and offensive defense. It is also evident that the outpost forts were to
provide early warning before, and a secure baseline during, such interception
sallies. The result was a highly successful combination of the strategic defensive
with offensive tactics and operational methods, which made the system active
and resilient, with an inherent capacity to outconcentrate attackers, which
was the essential point of course. In other words, the Hadrian's Wall complex
looked like a fixed and static response to the fluid, dynamic threat of incursions,
but most of its actual forces were mobile and poised to attack, and thus inher-
ently capable of gathering into field forces to engage the enemy offensively.

It would appear, however, that historians unfamiliar with military operations
can entirely miss the point. Hence they criticize Roman frontier policy during
this phase of the empire for the linear deployment of Roman forces along the
limites, which amounted to an inelastic "cordon," bound to be penetrated,

according to them, and they quote Napoleon ("*le système de cordons est des plus nuisibles*") and Clausewitz as their witnesses. But the essence of cordon deployments is the *even* distribution of available defensive forces all along the line of interception, in order to cover the full frontage equally.

It is certainly true that the attackers of a cordon have the full advantage of concentration against a dispersed defense, as do all mobile columns against all tactically static lines: even if the offense is numerically inferior overall, and perhaps grossly so, it can still attain crushing local superiority at the chosen points of penetration. It is for this reason that all capable practitioners of war and all progressive theoreticians have always regarded evenly distributed cordon deployments as inherently inferior in *large-scale warfare against mobile forces.* Indeed, in such warfare it is only rational to choose a cordon deployment if the defense suffers from inferiorities that cannot be overcome. For example, an army composed solely of infantry, when opposed by cavalry forces, can have no hope of successful maneuver in any case, so the *only* feasible defense may be the formation of a continuous interception line. Similarly, the cordon may be the best form of deployment for defensive forces that are grossly inferior to the attackers in command and control (or in their means of communication); again, such forces would be outmaneuvered in mobile warfare in any case, and by adopting cordon tactics they can at least hope to delay the enemy. When such deficiencies are *not* present, the voluntary adoption of a cordon, with its resultant dispersal of strength, can only signify a failure of generalship—or so goes the argument.

None of these organic inferiorities affected the Roman army during this phase of the empire. There was no inferiority in the overall level of mobility: although the core of the army was still very much the heavy infantry of the legions, it also contained large cavalry forces. In the second half of the second century, the Roman army included at least 10 milliary and 90 quingenary *alae*, a total of some 55,000 horsemen at full establishment.[49] There was, moreover, the light cavalry of the mixed *cohortes equitatae*, at the rate of 240 horsemen for each milliary and 120 for each quingenary cohort. There are no precise data on the number of *cohortes equitatae* out of the total of 40–50 milliary cohorts and 270 quingenary cohorts estimated for the second half of the second century, but the proportion may have been quite large. In Britain, for example, 5 of the 7 attested milliary cohorts and 31 of the 46 quingenary cohorts were *equitatae*,[50] though Britain was probably atypical. In Lower Germany there were 6 attested *cohortes equitatae* and as many infantry cohorts, all quingenary

RAMPART WALK

WALL (DIMENSIONS VARIABLE)

LINE OF UNOBSTRUCTED SURVEILLANCE

BERM

OBSTACLE DITCH

DRAINAGE CHANNEL

GLACIS

SCALE IN FEET

0   10   20
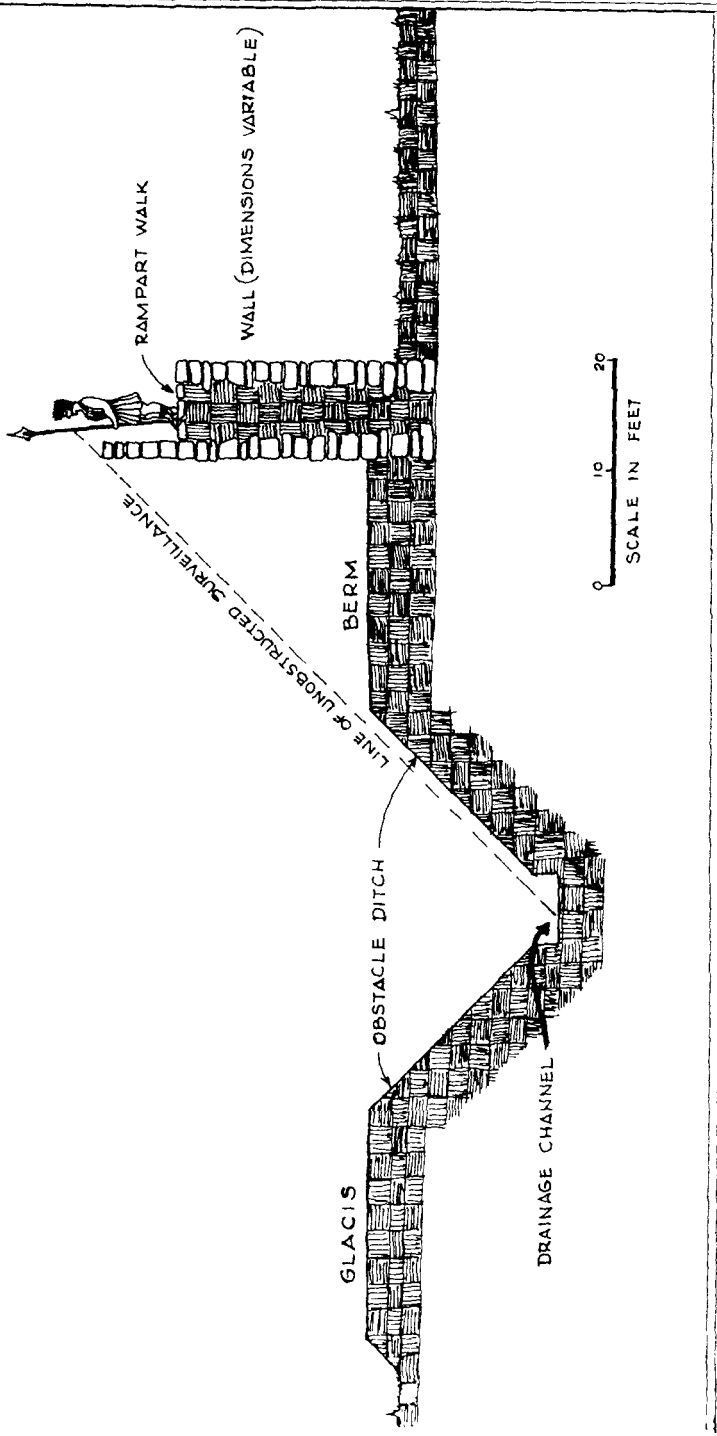
Hadrian's Wall: The Barrier Elements

Nor was there any inferiority in command, control, and communications. The disciplined division of authority in the Roman army must have produced a much more flexible system of command and control than any loosely orga-nized warrior bands could have. As far as communications are concerned, there can be no comparison between Roman signaling methods and whatever improvised pool of runners their enemies could put together.

In the absence of the intrinsic inferiorities that alone can justify a cordon deployment, why then would the Romans have adopted it, as some authorities assert? Actually, they did not. Roman troops were *not* evenly distributed along a line of interception in the manner of frontier guards. Instead they retained the ability to concentrate to form mobile striking forces. Sometimes deployed in depth behind the sector defenses and sometimes deployed along the line it-self, Roman troops remained concentrated within the ascending hierarchy of guardposts, auxiliary forts, and legionary "fortresses." Along Hadrian's Wall, for example, the original structure of the forces was as follows:

The legions VI Victrix at Eburacum (York) and XX Valeria Victrix at Deva (Chester). Far from being deployed along the line as a static cordon, these forces were concentrated in the deep rear (between 100 and 140 miles from the wall). It should be noted, incidentally, that the legion at Chester was deployed in a classic economy-of-force hinge position: it was equally available to support the auxiliary forces distributed in forts throughout Wales (together with the third legion in Britain, the II Augusta at Isca Silurum, Caerleon) or to backstop the northern sector, together with the VI Victrix.[58]

The auxiliary alae and cohorts deployed in the three (Hadrianic) outpost forts and six-teen wall forts, totaling some 5,500 cavalry and 10,000 infantry. These forces, though on the line itself (unlike the legions), were nevertheless deployed as concentrated striking forces, not evenly dispersed along the line.[59] (It is believed that all these units were under the command of the headquarters unit on the wall, the military unit stationed at Stanwix,[60] which was no mean force even on its own.)

Guards and lookouts, fewer than 3,000 men in all. This was the only troop element that was thinly distributed and therefore operationally static. They manned the milecastles (small forts built into the wall at intervals of one Roman mile) and provided the lookouts for the turrets, two of which were paced out between each pair of milecastles. These turrets had an internal area of only 14 square feet, hence they must have been manned in rotation by guards drawn from the adjacent milecastles.[61]

during the period 104–120; earlier, when the sector had been more active, in 70–83, there is epigraphical evidence for 11 quingenary *cohortes equitatae* but only 8 infantry cohorts, and there was also one military *cohors equitata* and two military infantry cohorts.[51] (One plausible estimate for the second century arrived at an approximate Roman army total of 80,000 mounted auxiliary troops of all types.)[52]

Clearly, there was no overall lack of mobility. It has been calculated that in the second century, the front headquarters for Hadrian's Wall (in the military cavalry fort of Stanwix) could deploy some 5,500 cavalry of *alae* and perhaps 3,000 light cavalry of *cohortes equitatae*,[53] a large force for a sector only 73.5 miles wide. In Lower Germany, on the other hand, in the period 104–120 CE, the units attested on the sector included a total of 3,700 horsemen.[54]

What matters, of course, is not the absolute mobility of part of the frontier troops, but the *relative* mobility of all. In some sectors, the Romans did face primarily the threat of mounted raiders (or cavalry armies, in the eastern sectors), but elsewhere loosely organized tribal communities of farmers could hardly have supported a large number of horsemen. In the Balkans, the Sarmatians, who had come from the steppes, fought primarily on horseback, as heavy cavalry armed with the *contus*, a heavy lance (i.e., a shock weapon).[55] But the Germanic tribes fought primarily on foot until well into the fourth century.[56] The only sector where the Romans always faced an enemy capable of fielding large cavalry armies was Parthia.

It would be misleading to evaluate the mobility of Roman forces purely in terms of the auxiliary cavalry, but it is equally misleading to compare legionary troops burdened with their notoriously heavy kits to lightly armed barbarians.[57] Day-to-day security functions were, in any case, the province of the auxiliary troops, which were not equipped with heavy shields nor provided with weighty kits. Furthermore, Roman commanders were perfectly capable of exercising "load discipline"—essential then as now to preserve the mobility of field units against the universal tendency of soldiers to gather and keep. (In *Tiberius*, 18, Suetonius described how Tiberius personally inspected the kit of the troops going to fight across the Rhine to ensure that it was not too heavy, giving us a glimpse of a good commander in action: *"Traiecturus Rhenum commeatum omnem ad certam formulam adstrictum non ante transmisit, quam consistens apud ripam explorasset uehiculorum onera, ne qua deportarentur nisi concessa aut necessaria."*)

This breakdown reveals the true nature of the deployment. Of a grand total of almost 30,000 troops deployed on the sector, 10 percent at most were committed to static defense,[62] which is by no means a large proportion. In fact, it is comparable to the proportion of manpower that a mobile field army would allocate for security duties in the rear.

On other segments of the imperial perimeter there was a similar distribution of forces: many mobile, few static. On the trans-Danubian limes in Raetia, for example, the late second-century structure of forces consisted of five elements in an ascending hierarchy of concentration: on or very near the palisade or fence, small towers (*Wachposten* or *Blockhäuser*) were strung out, each housing a handful of men. Also on the line, larger guardposts (*Feldwache*) were spaced at less frequent intervals. Then there were still larger fortlets (*Zwischenkastelle*) at longer intervals; and finally, entire *alae* and cohorts were deployed in standard auxiliary *castella*, located mostly on the line but sometimes well behind the curtain.[63] In addition, as of 179–180 CE, the sector was backstopped by the legion III Italica deployed at Castra Regina (Regensburg), constituting the only striking force of major proportions.

The structure of forces described above was not that of the original (i.e., Flavian) scheme of border defense in Britain, Upper Germany, or Raetia. In that scheme, the auxiliary forts had frequently been located well behind the perimeter, itself only marked by watchtowers and outpost forts, since there were no linear barriers as yet. In both cases, the post-Flavian trend was to move the forts right up to the perimeter itself, usually abandoning the older forts behind the line. The change was once associated specifically with Hadrianic frontier policy, and much was made of it: the defense had supposedly been made inelastic by being deprived of the second line formed by the chain of auxiliary forts. But recent archaeological evidence suggests that this change was only one of degree.[64]

In any case, the tactical criticism is not valid, for at that time it was no part of Roman tactics to *allow* penetrations of the line in the manner of a defense-in-depth, where the enemy is to be trapped between outer and inner lines in a combat zone *within* the perimeter. Instead, the scheme called for a forward defense: the aim was to intercept the enemy *beyond* the perimeter. Hence the "Hadrianic" reorganization merely meant that auxiliary interception forces were already based at jumping-off positions, instead of having to march forward to them from forts several hours away.

It is now possible to reconstruct the outlines of the operational method of border defense. Instead of playing the role of the passive line to the dynamic mobile column of the offense (which could thus attain crushing numerical superiority at the chosen points of penetration), the forces deployed on each sector were obviously intended to sally out of their forts to intercept major bands of attackers, that is, intermediate-level threats. For threats below and above this threshold, tactics differed: against small-scale incursions and solitary attempts at infiltration, the guards in the fortlets (milecastles or their equivalents) would suffice; in the case of large-scale invasions, the *auxilia* would sally forth to contain the threat while legionary forces marched forward to backstop their defense.

The only troops not normally available for massed mobile deployments were that small proportion assigned to guard duty on the line. And these provided a rear-area security function, which mobile forces in the field would need in any case. One cannot therefore speak of an "inelastic frontier cordon"[65]— not, at any rate, at the tactical or operational level. For the essence of a cordon defense is the low degree of concentration imposed by an extended linear deployment, while at this time Roman frontier forces were still essentially mobile and could mass as quickly as any field army. The Romans, whose forces still retained their core of legionary heavy infantry, would benefit from maximal battlefield concentration on *both* sides: all else being equal, concentration would systematically favor the Romans, because their forces fought most efficiently at the higher levels of combat intensity.[66]

The great difference between the post-Flavian system of frontier defense and that of the Julio-Claudian era was in the greater provision of day-to-day security against low-intensity threats in areas unprotected by client troops. While Roman forces fully retained their ability to fight large-scale wars, because their capacity for mobility and concentration remained high (though legions were no longer deployed in multiple camps, according to Suetonius, *Domitian*, 7), they now had another type of military capability: they could provide a preclusive defense against low-intensity threats. Both force structures could ensure ultimate superiority in the field, the sine qua non of the empire's survival. But only the second could also ensure a high level of *civil* security, even in frontier zones.

These two dimensions of security were, and are, functionally very different and entail contradictory requirements. Isolated infiltrators and small bands of

raiders cannot be reliably intercepted by large striking forces marching or riding across the countryside. On the other hand, a thinly distributed interception line that provides a preclusive defense over the full length of the frontier cannot stop large-scale attacks. The conflicting demands of battlefield superiority, which requires concentration, and preclusive security, which requires linear dispersion, cannot be resolved unless a third element is introduced into the equation. That was the role of the limes frontier infrastructure, with its roads, watchtowers, guardposts, walls, palisades, and fences systematically built on the frontiers. These infrastructures resolved the contradiction between concentration and dispersion by serving as highly effective labor-saving devices. They enabled the army to provide preclusive security against low-intensity threats with a small fraction of its total force, while preserving the army's ability to fight in large-scale combat with the bulk of its forces.

Battlefield superiority is indispensable for strategic survival; any power that survives in a hostile environment does so by defeating the highest-intensity threats with which it is confronted. But strategic superiority does not automatically entail preclusive security. A state may retain control over its territory even if it does not repel each and every small-scale penetration.

Under the Julio-Claudians, there was no linear defense infrastructure, so high levels of day-to-day security for exposed frontier areas could not have been attained without fragmenting the Roman army into a very large number of small guard detachments. Actually, the legions and the *auxilia* were deployed in compact masses, often in multilegion camps. Between the widely separated legionary bases there was often no active defense at all. Instead, it was the client states and client tribes beyond the frontier that provided security within it, by themselves suppressing transborder infiltration at the source. Given the level of political organization and control in these states and tribes, which were kept in awe by the legions, a fully effective preclusive defense was out of the question. Few clients could be expected to control every would-be infiltrator and warrior-raider among their populations.

Notwithstanding the endemic insecurity of its unguarded frontiers, the Julio-Claudian system was highly efficient—efficient, that is, in terms of the goals of the empire at that time. But much evidence supports the inference that by the second century the goals had changed. Ultimate strategic security remained essential, but now there was a further requirement: providing *con tinuous* security for civilian life and property by insulating provincials from hostile barbarians even in peripheral areas. More particularly, the purpose of the

linear barriers was to divide the barbarians beyond from the barbarians within, who were in the process of becoming Romans.[67] Economic development, urbanization, and political integration, that is, Romanization—the ultimate goal—all required high levels of day-to-day security and also the separation of newly made provincials from their kin living beyond the nearby borders in freedom and savagery.

How, then, does one explain the "open" limites of eastern Anatolia, Syria, Palestine, Arabia, Egypt, Cyrenaica, Tripolitania, and Mauretania, where there were neither walls nor palisades? Why was the goal of preclusive security for civilian life pursued so consistently in Numidia and the West and seemingly not at all in the rest of the empire? In answer, we must first note that in Europe the river frontiers of the Rhine and Danube were not protected by linear barriers. Instead, watchtowers and signal stations were complemented by riverine patrol fleets (Classis Germanica, Classis Pannonica, and Classis Moesica). The Danube's winter freeze, when the river fleets could not operate, was therefore the time of greatest danger, because the land-based surveillance system was much less effective without their support.[68]

A similar adaptation to circumstances is found in the case of the desert frontiers of Asia and Africa. There, too, no continuous barrier was needed against low-intensity threats. There were, of course, numerous nomadic tribes that would raid the frontier zones, given the opportunity (into the twentieth century, the predatory *razzia* was the major cottage industry of the desert). But this did not mean that *linear* defenses were needed, since there were no broad cultivated zones to be protected. In the Syrian, Arabian, Palestinian, and Saharan frontier zones there were only isolated towns and small islands of oasis agriculture, and it was much more efficient to protect those localities individually than to protect the whole area. Hence one could say that along the desert fringes of the empire there was no real frontier, nor any political border demarcating zones of greater and lesser political control.[69]

The only places over which the Romans truly exercised firm control, because they provided for their security, were the individual settlements. In the Negev Desert of Israel, for example, towns like Nitzana, Haluza, Rehovot, and Shivta were fortified islands in a sea of desert, a barren landscape that needed no protection because it held nothing of value for Romans, natives, or raiding nomads.[70] On the outer periphery of these settlements, houses were built very close to one another, forming in effect an all-round perimeter that mounted raiders would not easily venture to penetrate; hence, these towns did not need walls. Towers

MAJOR
ATTACK

PROVINCE-WIDE INTERCEPT
BY   2 LEGIONS
        20 COHORTS
        2 ALAE
    (E.G., 5000 CAVALRY
        10,000 INFANTRY

LOCAL
ATTACK

LOCAL ATTACK

5-COHORT
OPERATION,
(MAX.) INF
LIGHT CAVA

7-COHORT INTERCEPT,
E.G., 3000 INFANTRY
PLUS LIGHT CAVALRY

FRONTIER DEFENSE
BY CAVALRY/INFANTRY
PINCER MOVEMENTS

RIVER   TRAN

MAJOR
ATTACK

5 COHORTS
PLUS LEGIONARY
CONTINGENT

RIVER

HIGHWAY

HIGHWAY

0   10   25   50   100

SCALE OF MILES

...ON

...CEPT

LOCAL DISORDER
1 COHORT POLICE ACTION

ARTIFICIAL BARRIER
OR RIVER TRACTS

INTERPROVINCIAL HIGHWAY

MAJOR RIVER [E.G., RHINE]

LEGEND

═══ – MAJOR (INTERPROVINCIAL) HIGHWAY

- - - - – MILITARY ROADS AND PATROL ROUTES

▥▥▥ – IMPERIAL FRONTIER

⇨ – EXTERNAL THREATS

➡ – INTERCEPT (MAJOR)

→ – INTERCEPT

[A] – CAVALRY (ALA) FORT

[L] – LEGION

□ – COHORT FORT, INFANTRY OR MIXED
(INCLUDING MILLIARY COHORTS)

o – GUARD POST, NO MOBILE TROOPS

. . . . of impending attack, communications to summon mobile . . . . network sufficed to ensure security for the desert towns. . . . . proves that the towns *were* secure, for no settled life can . . . . range of desert nomads unless provided with a reliable . . . .

Widely spaced sources of water dictated an agriculture scattered across the entire desert belt from Mauretania to Syria; thus all these areas could be protected by point defenses, echeloned in depth. On the Syrian limes, this meant further that the system could be effective against the high-intensity Parthian threat; defense against the Parthians required good roads and a substantial body of troops, but not a linear barrier.[71]

The security problems of modern Israel during its vulnerable first decades provided an exact parallel: it faced a high-intensity invasion threat from Egypt on the Suez Canal–Sinai sector, but only a low-intensity infiltration threat on the Jordan River border with the Hashemite kingdom. Accordingly, the Israelis had to establish two very different defensive systems: a large mobile force deep in the Sinai with only a picket line of small and widely separated observation strongholds (the Bar Lev Line) on the canal itself; and on the Jordanian frontier, against the much less significant threat posed by the Palestinian guerrillas, an uninterrupted barrier of fences, surveillance devices, and mined strips to prevent infiltrators from penetrating the settled areas of the West Bank, which are within walking range of the river Jordan. By contrast there was no need to preclude infiltration on the canal front, because inside it there was no Israeli civilian life, only the desert.

Given that the southern edge of Numidia also faced the desert, why was the linear barrier of the Fossatum Africae built? This, the longest of all Roman barriers, is a huge exception to the pattern of localized or point defenses found on other desert frontiers. But here again, the military factor was conditioned by the hydraulic: the *fossatum* coexisted with linear water-management schemes that allowed the development of agriculture not only in scattered oases but also across long stretches of what would otherwise have been desert.[72] Both the linear defenses and the extensive water-management infrastructure of Numidia were based on the same scheme of frontier settlement and defense: then as now, the two indispensable requirements of desert survival are water and security. Since the establishment of the settlements was concurrent with that of their defenses, the system as a whole must have had a purpose beyond the creation of a closed loop of irrigation and defense in the frontier zone it

self. This purpose, which had to be external to both aspects of the *fossatum* if it were to be rational, was surely to provide high levels of security for the territory *behind* the frontier zone, that is, between the frontier and the Mediterranean coast, an area that would otherwise have been vulnerable to seasonal nomadic raiding.

Without dependable security for civilian life and property, there could be no economic development to generate surpluses and thus sustain towns. Without the *fossatum* to contain the chronic threat of nomadic raiding, Numidia would have remained undeveloped; there would have been neither extensive urbanization nor its political concomitant, Romanization. Here more than elsewhere the purpose of continuous frontier barriers is apparent: they were designed not to shelter an army afflicted by a Maginot Line mentality, but rather to allow civilian life to develop in ways calculated to facilitate the long-term survival of the empire, by creating a social environment receptive to Roman ideals and responsive to imperial authority. In addition, the *fossatum* could also serve as a customs barrier, providing the opportunity to levy tariffs on nomads' animals being brought into the empire for sale and also possibly on the transhumant traffic of nomads seeking pastures on the Roman side or, given the aridity, post-harvest gleanings for their animals and themselves.[73]

But such levies were not collected by customs clerks. They were collected by soldiers in a policing or, more precisely, a gendarmerie role, who concurrently had an important security function, that is, the monitoring of nomad transborder traffic and the denial of passage to nomad groups that were too large, or too belligerent, or too well armed.[74] Transhumance across settled areas, especially if there are ethnic tensions, can be devastating. That is how, for example, the Armenian towns of eastern Anatolia were ruined by Turcoman and later Kurdish nomads, who bullied and pillaged their way through the streets in the course of their annual migration: each time, crops were lost to their animal herds until there was nothing left but ruins.

Border Defense: The Strategic Dimension

Even though frontier tactics were offensive, there is no doubt that at the empire-wide strategic level, the pattern of deployment was a thin linear perimeter, and Rome's military strength *was* fragmented into regional armies. By the time of Hadrian, these armies were already acquiring separate identities (Exercitus Germanicus, Raeticus, Norici, Dalmaticus, Moesicus, Dacicus, Britannicus, Hispanicus, Mauretanicus, Cappadocicus, and Syriacus).[75] Each of these armies,

organized around the core of legions stationed permanently in each region and provided with fleets where appropriate to give waterborne support to the land forces (there was almost no naval warfare),[76] was deployed in response to centralized assessments of the *regional* threat. Given hindsight of the concentrated threat that was to materialize in the second half of the second century on the Rhine and Danube, which was to threaten the very survival of the empire two generations later, critics have censured this deployment on the grounds that it was inelastic and inherently fragile. But at the time of Hadrian there was *no* systemic threat, and thus no reason to sacrifice the long-term political priority of a preclusive frontier defense for the sake of a more elastic deployment directed at nonexistent regional or systemic threats.

The only alternative to the regional distribution of the army would have been a centralized deployment, with large troop concentrations based at key transit points on the inner lines of communication rather than deployed on the outer perimeters of the frontiers. There was, of course, no possibility of adopting a fully centralized deployment strategy, using only a thin deployment of border guards on the frontier and keeping all other forces in a single, undivided strategic reserve. Such a deployment can only be as effective as the available means of transport are rapid. Even today, certain precautionary deployments in situ are deemed to be necessary to contend with threats that are liable, if they do emerge, to do so very rapidly. For example, even though possessing airborne mobility at speeds of 600 mph, the US Department of Defense considers South Korea too remote to permit the efficient device of allocating to it centrally located "earmarked" forces. The US troops must be stationed in the theater itself, with the resultant diseconomy of force, because of the obvious political functions that the deployment also serves.

It is only when the total defended area is small (in relation to the speed of transport) that the problem of troop deployment does not arise, since the timely inter-sector redeployments needed to match enemy concentrations against any one sector of the perimeter will not present any difficulty. Indeed, redeployments within the perimeter may then actually anticipate the emergence of the threat. For example, troops holding a small fort under siege will ordinarily be able to redeploy from rampart to rampart by moving on shorter internal lines, even before the offense can complete *its* concentration of forces by moving around the longer exterior lines.

But the Roman empire was not a small fort under siege. It cannot be visualized as a fort at all, however large, because any fort will always have the advan-

tage of shorter inner lines of communication. In fact, the geographic shape of the empire was most unfavorable: its center was the hollow oblong of the Mediterranean, and the Mediterranean could be as much a barrier as a highway. (The more the perimeter approximates a circle, the greater is the advantage; the more the perimeter approximates a thin rectangle, in which long-axis intersector distances on the inside will be virtually the same as those on the outside, the smaller the advantage.)

Seaborne transport on straight transits could, of course, be faster than transport overland, but it was subject to the vagaries of the weather. From November to March navigation was virtually suspended; even the largest vessels available to the Romans, the Alexandrine grain ships, waited until April to set out on their first voyage of the season.[77] Two-day voyages between Ostia and the nearest point in North Africa (Cape Bon), six-day voyages between Sicily (Messina) and Alexandria, and seven-day voyages between Ostia and the Strait of Gibraltar are recorded; but those speeds, averaging 6, 5.8, and 5.6 knots, respectively, are all exceptional—which is, no doubt, why they were recorded.[78] It has been calculated that normal speeds for fleets, with favorable winds, were of the order of 2–3 knots, slowing to only 1–1.5 knots with unfavorable winds.

But compared to the speed of troops marching on land, even those speeds are high: with a normal kit, over level ground—or on paved roads—Roman troops could march for roughly 15 Roman miles (or 13.8 statute miles) per day over long distances,[79] while ships could carry them over a distance of 27 miles in 24 hours for each knot of speed. Moreover, distances were often shorter by sea than on land, and sometimes much shorter. For example, the voyage between the naval base of Puteoli (near Naples) and Alexandria would take less than 42 days at sea, even at the minimal speed of 1 knot. On land, however, the journey would take roughly 180 days of uninterrupted marching plus 2 days at sea; and the full overland route by way of Aquileia (near Trieste) at the head of the Adriatic would require no less than 210 days. But this is a comparison of extremes, a straight-line journey by sea against a half-circuit of the Mediterranean. On the Rome–Antioch route, for example, a distance of 1,860 miles on land plus 2 days at sea (between Brindisi and the landfall on the Via Egnatia), the sea voyage would take roughly 55 days at 1 knot plus 2 days on land (Seleuceia–Antioch), while the land march would take roughly 124 days on land plus 2 days at sea, a ratio of 1:2.2 as opposed to the 1:4.3 ratio between land and sea journeys on the Rome–Alexandria route.

COLOGNE

COLOGNE - ROME
67 DAYS
MARCHING TIME

AQUI

OSTIA - MARSEILLES
MINIMUM - 3 DAYS
NORMAL - 10 DAYS

MARSEILLES

TARRACO

OSTIA - TARRACO
MINIMUM 5 DAYS

OSTIA

ROME

PUT

PUTEOLI - CARTHAGE
MINIMUM 2 DAYS
NORMAL 10 DAYS

CARTHAGE

0   200   400

SCALE OF MILES
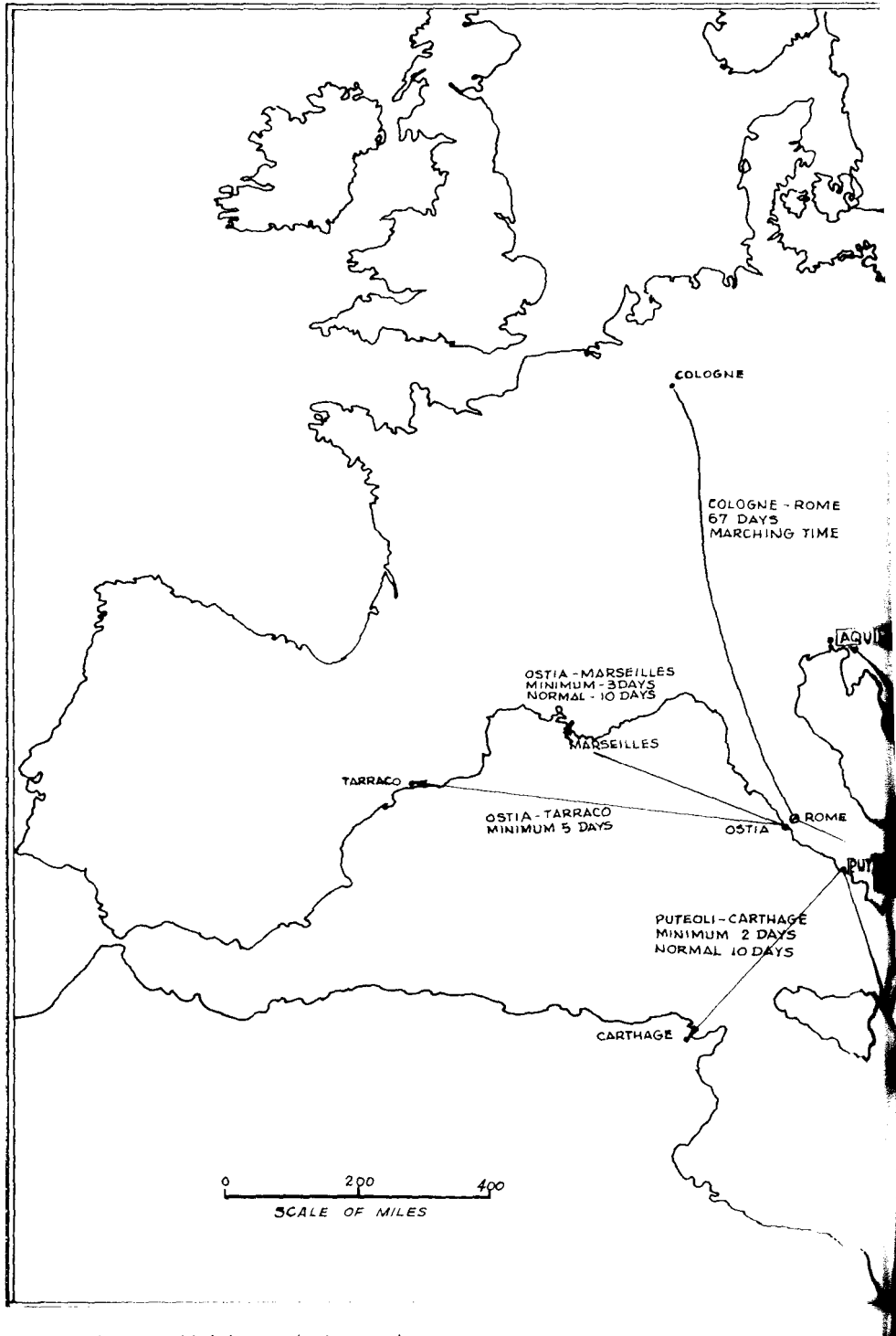
Map 1. Strategic Mobility in the Roman Empire

PANTICAPAEUM

CHALCEDON - PANTICAPAEUM
MINIMUM 10 DAYS

AQUILEIA - DYRRHACHIUM

DYRRHACHIUM

CHALCEDON

OVERLAND ROME - ANTIOCH
124 DAYS (+ 2 DAYS AT SEA)

ANTIOCH
SELEUCEIA

RHODES

ALEXANDRIA
V DAYS
4 DAYS

RHODES - ALEXANDRIA
MINIMUM 4 DAYS

PUTEOLI - ANTIOCH
MINIMUM 15 DAYS
NORMAL 55 DAYS

APOLLONIA

ALEXANDRIA
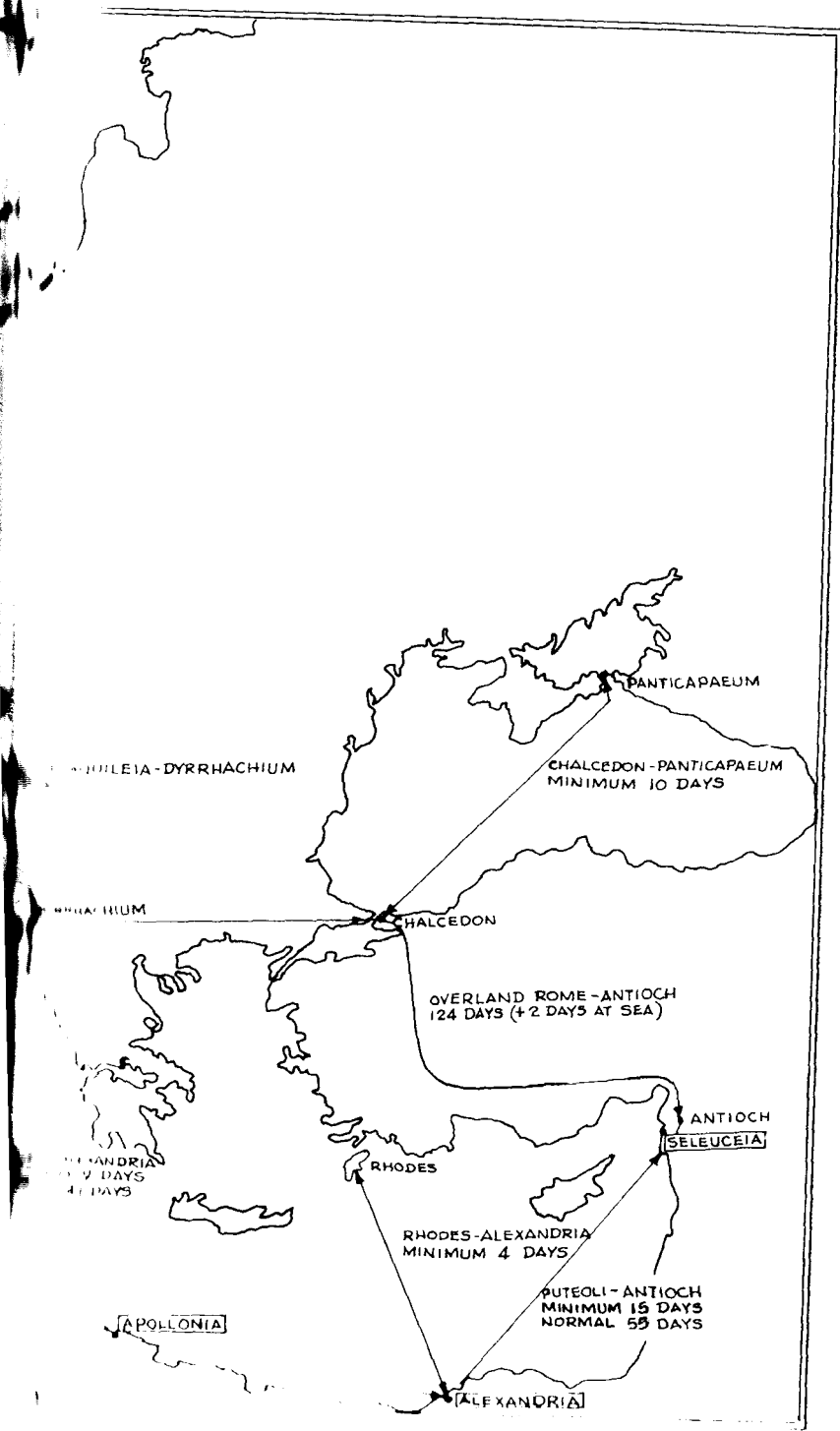
As soon as the ratio narrowed any further, the sea voyage often became the less desirable alternative. Ancient sailors could not contend at all easily with rough weather, and ships might be delayed unpredictably even in the sailing season, having to wait for weeks in order to sail. Moreover, long sea journeys were liable to impair the health of the troops.[80] Nevertheless, troops were frequently transported at sea, and special transports were also available for horses.[81]

Unlike the ancient empires centered on Mesopotamia or the Iranian plateau, the Roman empire had no real inner lines. With Cologne roughly 67 days' march from Rome, and Antioch, gateway to the critical Parthian sector, still more remote, the delay between the emergence of a new threat on the frontier and the response of a fully centralized system would have been unacceptably long. Had the Romans deployed their forces in a single centralized strategic reserve in the modern manner, their enemies would have been able to invade and ravage the provinces at will for months at a time and then retreat before relief forces could arrive on the scene.[82] There is thus little point in criticizing the deployment policy associated with Hadrian—which actually spanned the entire Flavio-Antonine era. The great inter-sector distances and the severe limitations on Roman strategic mobility made the choice of a regional deployment policy inevitable. Since, as we have seen, it mattered little whether the troops were actually on the frontier or echeloned in depth, the only question that remains is whether the chosen distribution of forces was fortunate in the light of the threats that unpredictably emerged.

The outlines of the Roman deployment strategy during the second century, corresponding more or less to the second phase of empire under the present analysis, may be discerned in the distribution of the legions.[83] These outlines must be deduced cautiously, however, because no exact correlation can be assumed between legionary and auxiliary deployments—the latter equally important, if not more so, at least numerically. As table 2.1 indicates, the variation in legionary deployments during the second century was very small, in spite of the upheavals of Trajan's wars and the still greater turbulence of the wars of Marcus Aurelius two generations later. The original number of Augustan legions, 28 prior to the Varian disaster, grew only to 30 by the end of the period, and the changes in regional distribution reflected the resilience of the system more than the dramatic vicissitudes of the second century. But the doubling of the number of legions in the East, from 4 to 8, shows the consequences of giving up on the client-state solution: the Romans needed 4 more

Table 2.1   Legionary Deployments, 23 CE to 192 CE

	23	ca. 106	ca. 138	ca. 161	ca. 192
Britain	0	3	3	3	3
Northern Front	8	4	4	4	6
Lower Germany	4	2	2	2	2
Upper Germany	4	2	2	2	2
Raetia/Noricum	0	0	0	0	2
Central Front	7	12–13	10	10	10
Upper Pannonia	3	3	3	3	3
Lower Pannonia	0	1	1	1	1
Dalmatia	2	0	0	0	0
Upper Moesia	0	3–4	2	2	2
Dacia	2	2	1	1	2
Lower Moesia	0	3	3	3	2
Eastern Front	4	6	8	8	8
Cappadocia	0	2	2	2	2
Syria	4	3	3	3	3
Judea	0	1	2	2	2
Arabia	0	0	1	1	1
Garrisons	6	4	3	3	3
Egypt	2	2	1	1	1
Africa	1	1	1	1	1
Spain	3	1	1	1	1
Other	0	1–0	0–1[a]		
Total	25	30	28–29	28	30

[a] The IX Hispana, whose location, if the legion was still in existence, is unknown.

legions to provide the security previously provided by Herod and his colleagues.

In Britain, there was no change at all, even though during this period the frontier moved forward from Hadrian's Wall to the Antonine Wall, the latter to be abandoned again by the end of the century.[84] The northern front remained static at 4 legions until after the Marcomannic wars, when the legions I Italica and III Italica raised in 165 CE were posted to Noricum and Raetia, respectively.[85] On the central front, the reorganization of sector defenses in the wake of Trajan's conquest of Dacia (and the establishment of what was perhaps the most scientific of all "scientific" frontiers) resulted in the consolidation of the Danube armies at the level of 10 legions, after the prior smaller increase

and the surge of Trajan's second Dacian war.[86] On the eastern front, the 2-unit increase in the legionary deployment reflected the annexation in 106 CE of Nabatean Arabia, which, as a province, received a legionary garrison, the III Cyrenaica, brought from Egypt and stationed at Bostra, where it remained.[87] The other additional legion (VI Ferrata) was deployed in Judea by the 120s, possibly already under Trajan although the exact date remains uncertain.[88] But it was there before the Jewish rebellions, the last of which was finally suppressed in 135, but not before the destruction of one (or possibly two) legions.[89] The *legionary garrison was thus doubled, since the X Fretensis (stationed in Judea since the time of Nero) also remained there permanently.*

The obvious change from the well-known legionary dispositions of the year 23 recorded by Tacitus in *Annals* (4.5) is the transfer of legions from the consolidated inner zones of the empire, where their function had been to maintain internal security, to the periphery, where they faced a primarily external threat. Dalmatia, a difficult country bisected by mountains crossed by very few roads, had its garrison reduced to one legion during the rule of Nero;[90] and the IV Flavia Felix, the last Dalmatian legion, was withdrawn by Domitian (ca. 86) to serve in the Dacian war. The scene of the great rebellion of 6–9, Dalmatia appears to have been thoroughly pacified thereafter. Similarly, the legionary establishments of Egypt and Spain were reduced drastically from a total of ten legions at the beginning of the principate to only three by the end of the Julio-Claudian era, until the further involuntary reduction brought about by the failure to replace the XXII Deiotariana, which was probably destroyed or cashiered during the Jewish revolt of 132–135.[91]

One scholar sees evidence in the table of legionary deployments over time that the second system of perimeter security was a mere mirage, because the legions were already mostly deployed on the frontier by the time of Tacitus's roll call. That is a misunderstanding. It is not changes in the location of the legions that distinguish the second system, but rather a change in the strategic purpose of the legions and the addition of a vast frontier infrastructure to limit transborder traffic and to provide provincial security all the way up to the border, that is, *preclusive security* to keep enemies out, and not just defeat them after they had penetrated into imperial territory. Most legions stayed in the same place under both systems, but under the second of the Flavians and the Severi, they were increasingly tasked not just with threat interdiction, but with guard and patrol duties to provide preclusive security.

Table 2.2   Auxiliary Troops in Lower Germany

	70–83 CE	104–120 CE	Third century
Alae	6	6	7
Milliary cohorts	2	1	1
Milliary cohorts (*equitatae*)	1	0	0
Quingenary cohorts (*equitatae*)	11	6	5
Quingenary cohorts	8	6	7–8
Numeri	0	0	4

While the core provinces of the empire were now securely held by a handful of legions, the periphery needed stronger forces. As we shall see, this reflected a change in the instruments of Roman security policy, from the client system to a seemingly more secure but ultimately more fragile reliance on direct military force.

Because Britain had needed four legions from the inception of the Roman conquest in the year 43 until Domitian, and three thereafter,[92] neither the four-unit increase in the legionary establishment achieved under the Flavians,[93] nor redeployments from Egypt, Spain, and Dalmatia sufficed to provide the additional forces required on the Danube frontier and for the reorganized eastern front. Accordingly, the armies deployed on the Rhine were substantially reduced—and also possibly because the Germans across the river had become weaker.[94] In the case of Lower Germany, for example, the number of legions was halved to two, and the auxiliary forces were reduced also, as table 2.2 illustrates.[95]

Thus the legionary garrison of Lower Germany decreased from about ??,000 combat troops to about 11,000, while the auxiliary establishment decreased from about 15,500 to about 10,000 (increasing again only slightly, to about 10,500 men, in the third century). Notice the absence of any milliary *alae* throughout this period, the reduction in the milliary cohorts, and the withdrawal of the only milliary *cohors equitata* on the sector. It is a plausible speculation that milliary *alae* were premium forces allocated to high-threat sectors and deployed at key points within them.[96] Obviously, Lower Germany was not one of these points—unlike Upper Germany, which had the milliary Ala II Flavia, or Britain, which had the Ala Petriana.

On all fronts, the changes in the pattern of legionary deployment reflected not merely the course of local events but also the advent of a new strategy of

preclusive frontier defense. The security policy initiated by the Flavians had clearly matured. Its major feature was the deliberate selection of optimal regional perimeters, chosen not merely for their tactical and topographic convenience but also for strategic reasons in the broadest sense—in other words, "scientific" frontiers.

It is important to acknowledge at this point the very poor geographic knowledge of the Romans, which a number of contemporary historians insistently cite to argue that they could not possibly have had any sort of rational strategy. Yes and no: the Romans did not have real maps that we know of, let alone accurate ones—they relied on itineraries. One is the famous *Tabula Peutingeriana*, which shows the trans-imperial routes of the *cursus publicus*, the official horse-relay messaging service; the very long (6.75-meter) thirteenth-century parchment scroll is a copy of a fourth- or fifth-century document, itself probably derived from Marcus Vipsanius Agrippa's map, which was carved in stone in or just after 12 BCE, according to G. Bowersock armed with strong evidence.[97] Useful to plan journeys, such an itinerary is useless to plan frontiers or their military garrisons. On that basis some have denied that the Romans could think strategically at all. But the lack of accurate maps was no great obstacle: it is undisputed that the Romans had all the necessary skills and equipment for large-scale territorial surveys,which they did all the time for fiscal purposes, and even had distance-measuring machines.[98]

When it came to the frontiers specifically, maps or no maps, Hadrian's Wall, for example, did bisect Britain at just about the narrowest point that did not require venturing into savage Scottish lands, so the Romans were not just blundering in the dark. In the case of the northern front, the Rhine and Danube provided very obvious borders that did not have to be visualized on a map; in arid zones it was the rainfall (enough to sustain barley at least if not wheat) that defined the borders, again without need of maps; and in Syria/Mesopotamia and eastern Anatolia, it was the resistance of the Parthian enemy that set the borderlines, again without need of maps.

As for the much larger question of the concept of strategy in Roman times, the argument rests on how "strategy" is defined. I hold that strategy is not about moving armies on maps, as in board games, but rather strategy comprehends the entire struggle of adversarial forces—the phenomenology of conflict which need not have a spatial dimension at all, as with the eternal competition between weapons and countermeasures. Indeed the spatial dimension of strategy is rather marginal these days, and in some ways it always was.

It is the struggle of adversarial forces that generates the paradoxical logic of strategy, which is diametrically opposed to the commonsense, linear logic of everyday life. In strategy, the seemingly contradictory is the rule: bad roads are good in war because their use is unexpected, generating surprise that yields a temporarily nonresistant enemy, thereby suspending the entire predicament of conflict; victories are transformed into defeats if they merely persist long enough to pass their culminating point. And much more of the same: *si vis pacem, para bellum*, if you want peace, prepare for war, is no oddity but rather the (paradoxical) rule. Hence strategy is not transparent and never was, but it always determines outcomes, whether men know of its existence or not. That some understand it and others do not is a historical fact literally inexplicable in its persistence, for the paradoxical logic of strategy is more often absorbed intuitively than understood explicitly.[99]

Nonpractitioners by contrast, notably scholars who have never participated in real-life military planning or decision making, in headquarter meetings or in combat, seem to believe that strategy is a form of systematic group thinking guided by rational choices, whose results are then itemized in official documents. It is true that decisions driven by the logic of strategy itself, or (more often) brutishly motivated by the conflicting urges of power seeking or retreat, are *rationalized* in that way, but that is all. Nor is strategic practice the mere application of techniques that could be applied anywhere and by anyone. It is always the expression of a particular culture, in this case the unsentimental, unheroic, rigorously materialistic Roman imperial culture, with its vast accumulated experience of fighting and pacifying many tribes, nations, and potentates. If one compares the borders of the Roman Empire under Hadrian with those of the short-lived empire of Alexander the Great—or, for that matter, with Napoleon's empire at its height—the first immediately reveals the workings of strategic calculations and sober administrative priorities (not for the Romans costly wars without profit), while the second and third display the consequences of undiscriminate, merely egotistical, expansionism.

In Britain, with any idea of total conquest abandoned, the frontier was fixed on the Solway–Tyne line of Hadrian's Wall. Earlier, under Cn. Julius Agricola, governor of Britain from 79 to 84 CE, the Romans had penetrated much farther to the north, beyond the Clyde–Forth line.[100] This expansion not only enclosed much more territory than the Solway–Tyne line but the border was also much shorter. However, scientific frontiers were designed not to encompass as much territory as possible, but to encompass the *optimal* amount of

territory—in other words, the area that it was profitable to enclose on political, economic, or strategic grounds, net of garrisoning costs. Therefore, the shortest line was not necessarily the best frontier, if it happened to enclose difficult terrain inhabited by difficult peoples—as the Clyde–Forth line certainly did. Hence the Romans chose the very sensible withdrawal that Tacitus (*Histories*, 1.2) most bitterly, most memorably, and most unfairly criticized with much exaggeration in his "*perdomita Britannia et statim omissa*"—Britain wholly conquered and immediately abandoned.

Two decades after the building of Hadrian's Wall and its infrastructures was completed, the Clyde–Forth line was reoccupied, and in 142 the Antonine Wall was built to demarcate and secure the new frontier. On the basis of the fragmentary evidence available, it has been argued that the advance was precipitated by the breakdown of the tribal *clientelae* that had constituted the diplomatic glacis of Hadrian's Wall.[101] The new fortification was much simpler and, in a way, more functional. Closely spaced forts at intervals of roughly 2 miles made the milecastles and turrets of Hadrian's Wall unnecessary; there was, instead, a simple wall roughly 10 feet high with a 6-foot patrol track screened by a timber breastwork. No equivalent to the vallum was built in its rear, but there was the indispensable obstacle ditch (here roughly 40 feet wide and 12 feet deep), as well as a perimeter road running behind the wall.[102]

Seen as lines on a map, and especially on a small-scale map that does not show the topography but only the geography, the Antonine Wall seems much more "scientific" than the Hadrianic; for one thing, it was much shorter, only 37 miles in length as opposed to 73⅓ miles. The Antonine Wall, however, had a significant disadvantage: Roman methods of pacification in frontier zones required that the inhabitants and the terrain be suitable for settlement and development, so that "self-Romanization" could emerge as the voluntary response to Roman rule, Roman ideas, and Roman material culture. Diplomacy, on the other hand, required that those who lived beyond the frontier be responsive to threats and inducements. The people and terrain on both sides of the Clyde–Forth line fulfilled none of those conditions. As a result, the rear of the Antonine Wall was never fully pacified, and its front remained unsecured, for no glacis of dependent clients was formed.

By 158 CE restoration work was under way on Hadrian's Wall,[103] and the Clyde–Forth line collapsed then or shortly thereafter, when the peoples divided by the barrier rose up in revolt.[104] The forces in Britain were already badly overextended. By one calculation, the added manpower necessary to

advance the frontier to the Antonine Wall, increasing the number of occupied forts to 114, was supplied by risky expedients: the evacuation of some forts (e.g., in Wales), the short-manning of others, possibly the recruitment of lower-grade *numeri* (poorly attested and possibly nonexistent as a separate category), the resort to legionary *vexillationes*, and rapid redeployments on a circulating basis.[105] But by 162, the onset of the Parthian War made reinforcement of the British garrisons impossible.

Although the Antonine Wall was briefly reoccupied and restored in an exuberant but not at all cost-effective advance into lowland Scotland in 208–211 under Septimius Severus,[106] Hadrian's original scheme of frontier defense was vindicated by the end of the century when his wall became the frontier once again, as it would remain until the last phases of Roman rule.

In Germany, the original goal of conquest beyond the Rhine was abandoned in the aftermath of the Varian disaster, but the post-16 withdrawal did not lead to retreat to a scientific frontier, for the Rhine was certainly not that. It is true that in places where the banks were steep and high, the Rhine was topographically convenient for surveillance and defense. Moreover, the Rhine river fleet (Classis Germanica) could give useful waterborne support to the forces on land, being particularly efficient for frontier patrols against low-intensity threats.[107]

One scholar argued that rivers were not effective as frontiers,[108] and another noted that Roman authors did not depict rivers as "military fronts."[109] Such comments reveal a plain lack of military expertise (hardly a sin in classicists with no such pretensions): of course, rivers in themselves defend nothing. But they do form a ready-made line of delimitation; they did allow effective patrolling in pre-GPS days without straying over or too deeply within the intended perimeter (a danger even with modern maps); they allowed supplies to be delivered to riverine outposts and forts with boats (inherently more economical than carts or pack mules); and they made it possible to send replacements and reinforcements (with their full kits) to riverine forts and observation towers, beyond the capacity of pack animals or backs. Furthermore, by keeping reserve forces upstream of each segment of the river frontier line, the arrival of reinforcements could be accelerated by the current.

An inscription found near the Danube recorded that Commodus placed outposts to intercept infiltrators;[110] its author clearly viewed the riverine fortifications as useful primarily against low-intensity threats, transborder thievery, and brief incursions. Another inscription, noting the accomplishments of

Tiberius Plautius Silvanus Aelianus, governor of Moesia during Nero's reign, described how he brought to the riverbank "kings" previously unknown to the Romans to pay homage.

But as a strategic frontier, the river had a grave defect: the L-shaped Rhine–Danube line that hinged on Vindonissa (Windisch) formed a wedge roughly 180 miles long at the base (Mainz–Regensburg) and 170 miles to the apex, cutting a deep salient into imperial territory. As a result, the imperial perimeter between Castra Regina (Regensburg) and Mogontiacum (Mainz) was lengthened by more than 250 miles, not counting the twists and turns of the two rivers. This added 10 days or so to the time needed for strategic redeployments between the German and Pannonian frontiers on the shortest route by way of Augusta Vindelicorum (Augsburg). Worse, the deep wedge of the Neckar valley and the Black Forest formed a ready-made invasion axis, which endangered lateral communications north of the Alps and was only a week's march away from the northern edge of Italy.

Even without maps, the Romans were evidently able to visualize big-enough segments of their borders to guide the successive frontier rectification campaigns that gradually transformed the Rhine–Danube perimeter. On this sector, at any rate, it is quite clear from the map of archaeological investigations that the emperors' individual differences of temperament and orientation, so strongly stressed in the narrative sources, did not affect the general continuity of imperial policy.[111] There was also continuity in methods. Roads and forts were built in sets, by means of characteristically Roman "engineering offensives" focused on three critical hinge points: the legionary bases at Mainz (I Adiutrix and XIV Gemina under Vespasian), Strasbourg (VIII Augusta), and Windisch (XI Claudia).[112]

First, under Vespasian, and indeed as soon as order was reestablished in Germany after the revolt of Civilis (ca. 70 CE), old fort sites in the Wetterau bridgehead (Wiesbaden and Hofheim) on the right bank of the Rhine opposite Mainz were rebuilt and reoccupied. Other forts were established on the right bank of the Rhine as far south as Heidelberg/Neuenheim; at the same time, the old forts on the left bank of the Rhine may have been evacuated, as Rhe ingönheim certainly was.[113] Such moves could have been consistent with a limited bridgehead strategy (compare the outpost forts beyond Hadrian's Wall) or with a more ambitious attempt to open a Mainz–Augsburg axis, across the apex of the Rhine–Danube salient. Around 74, however, a further line of penetration was opened on the Windisch–Rottweil axis. It bisected the salient and

would have made possible an improved—if still indirect—connection from the Rhine to the Danube on the Strasbourg–Tuttlingen axis. It would also have provided flank security for the more drastic surgery of a Mainz–Augsburg axis (together with the Vespasianic forts built, or rebuilt, along the Danube from Linz to Oberstimm and farther west to Emerkingen).[114]

Domitian's German campaign of 83–85, on which Frontinus (*Strategemata*, 1.3.10), provides some precise data,[115] penetrated 120 miles to establish a frontier on the crest of the Taunus Mountains, which dominate—and could now protect—the fertile Wetterau. This was Domitian's war against the Chatti, ridiculed by Tacitus (*Agricola*, 39),[116] who claimed that fake prisoners were produced for a sham triumph. That relentless if slow-moving offensive made ideal use of the combat-engineer capability of the legions, but could hardly capture many prisoners. It was indeed an engineering campaign, aimed at the construction of forts, roads, and watchtowers from the confluence of the Lahn and Rhine rivers along the crest of the Taunus and southeast to the Main, which reveals both coherent planning and systematic, detailed preparations. It left behind an organized frontier manned by patrols and secured by a series of small road forts, watchtowers, and auxiliary forts.[117] One benefit of the new limes was the ability to control access to the Neuwied basin and Wetterau. The latter was the territory of the Mattiaci, a people already under Roman diplomatic influence but until then vulnerable to harassment by the Chatti, according to Tacitus (*Germania*, 29).

After a break imposed by the Dacian troubles on the Danube and the attempted usurpation of the legate of Upper Germany, L. Antonius Saturninus, Domitian's frontier rectification offensive resumed on a large scale circa 90. It was at this stage that the salient was finally cut and the *agri decumates* enclosed. New forts were built on the Main from Seligenstadt to Obernburg and to the Neckar River; along the edge of the Odenwald, a chain of small forts and watchtowers secured a connecting limes road. On the approaches to the river the larger cohort forts began to appear again, from Oberscheidental to Wimpfen on the Neckar, continuing with a series of cohort forts to Köngen. The nature of the connection between the Neckar line at Köngen and the Danube limes is unclear; it is certain, however, that a much shorter route from Pannonia to Germany was now available by way of Köngen; a Heidenheim–Faimingen route to the Danube seems probable.[118]

The final perimeter between the Rhine and the Danube was not established until the Antonine era, when the line from Miltenberg Ost, Welzheim, and

CALEDONII

HIBERNIA

VI VICTR X
(EBURACUM, YORK

XX VALERIA VICTRIX
(DEVA) CHESTER

BRITANNY

II AUGUSTA
(ISCA SILURUM)
CAERLEON

FIRTH OF FORTH

ANTONINE WALL

CLYDE

R.

FIRTH OF CLYDE

VOTADINI

SELGOVAE

TYNE

RISINGHAM

BEWCASTLE

NEWCASTLE WALLSEND

BIRRENS

NETHERBY

HOUSTEADS

TYNE R.

CHESTERS

BIRDSWALD

STANWIX
(HQ)

HADRIAN'S WALL

BOWNESS

(Y-TYNE LINE)

WAY

BRIGANTES

VI VICTRIX
(EBURACUM)
YORK

XX VALERIA VICTRIX
(DEVA)
CHESTER

○ – FORTS (ANTONINE WALL)
□ – MAJOR WALL FORTS (HADRIAN'S WALL)
⊡ – OUTPOST FORTS (HADRIAN'S WALL)
═══ – MAJOR HIGHWAYS

0   10   20   30   40   50   60   70   80   90
SCALE OF ROMAN MILES

0   10   20   30   40   50   60   70
SCALE OF ENGLISH MILES

Map 2.3. The Wall Frontiers of Roman Britain

Schirenhof to Eining was established and fortified in the "Hadrianic" manner, with a palisade screening the patrol track and linking watchtowers, small forts, and auxiliary bases. (The straight-line limes from Miltenberg-Ost to Welzheim is thought to be Antonine, but the Schirenhof–Bohming line may have been Hadrianic).[119]

Because of the cumulative nature of this vast enterprise, the new frontier in its final form was actually laid out in depth, with forts and roads behind the rough triangle of the limes between the Rhine and Danube, which had its apex at Schirenhof. There the Raetian segment of the perimeter joined the Upper German segment, at a point roughly 31 miles north of the Danube and 64 miles due east from the Rhine. This ultimate perimeter line was systematically consolidated over a period of more than a century by the addition of obstacle ditches, walls, and improved surveillance towers; stone walls eventually replaced the palisades on the Raetian segment of the limes.[120]

The Eining–Taunus frontier was a great improvement militarily over the old Rhine–Danube line, but the logic of its design is not evident on the map. Domitian's limes on the Taunus Mountains was anything but the shortest line between points; rather, it formed an awkward bulge that came to a narrow point in the area of Arnsburg. Yet while the southern segment of this limes, below the Main, was eventually left behind when the Antonine perimeter (hinged on Lorch farther to the east) was established, the curious hook-shaped line north of the Main was *not* replaced, but retained instead as the permanent frontier. Domitian's limes on the Taunus reveals the higher priority of the strategic over the tactical and the clear precedence given to the goal of Romanization through economic development over the attractions of a straight perimeter line.

At the *strategic* level, the Taunus frontier had the effect of blocking the natural invasion routes between northern Germany west of the Elbe and the upper Rhine region.[121] At the same time, as an outward salient rather than an inward wedge, the line did not prolong the strategic redeployment route across the sector. At the *operational* level, the Taunus frontier, though itself costly to man owing to the dense network of forts, roads, and watchtowers, had the effect of simplifying the problem of frontier defense for the whole of Upper Germany, because it pushed back the Chatti—apparently the most dangerous neighbors of the empire in the entire region—from the Rhine valley and the Wetterau. This, in turn, allowed an eventual reduction in the provincial garrison. The

legionary forces in Mainz (consisting of two legions until 89 CE) and the aux-
iliary forces distributed within the salient could concentrate to fight off the
Chatti whether the invaders advanced due south toward the Neckar or due west
toward the Rhine. In order to concentrate in the right places, the Romans
needed early warning of impending attacks, and the new frontier seems intended
to provide such advance warning, as well as to canalize major attacks and contain
minor ones.

The role of the political-economic goal of Romanization in determining
the shape of the frontier can only be hypothesized by inference: the area en-
closed by the Taunus–Main frontier, the Wetterau, is highly productive, ara-
ble land. The forests had been cleared and the land opened for farming long
before the Romans arrived. There a productive agriculture could generate
prosperity, *if* there was day-to-day security against infiltrators and marauders.
When that was duly assured, agriculture could in turn provide the material
basis of urbanization, which would then facilitate the processes of Romaniza-
tion. Precisely because it slights the obvious military advantages of straight
lines, this particular segment of the limes suggests other motivations in the
formation of frontier policy. It was Appian's opinion (*The Foreign Wars*, 7) that
the Romans "aimed to preserve their empire by the exercise of prudence, rather
than to extend their sway indefinitely over poverty-stricken and profitless
tribes of barbarians." Decisions about where to establish "optimal" frontiers were
guided by rational considerations—but divergent ones.

There is, therefore, a consistent pattern in Roman frontier policy, including
a hierarchy of priorities: first, the frontier should facilitate strategic transit
between the continental regions of the empire; second, it should *not* include
areas inherently difficult to settle, urbanize, and Romanize (such as Scotland);
third, it *should* include lands suited for settlement—lands that would enhance
the strength of the empire in men and resources, as Appian observed. Finally,
at a distinctly lower priority, the frontier should be as short as possible in order
to reduce the manpower required for outposts and patrols. (Because the Ro-
mans at this time would fight against large-scale threats with *mobile* troop con-
centrations, the length of the perimeter was not important vis-à-vis those
threats.) Another major consideration, which may have been important in the
case of the Taunus–Main frontier, was more or less the reverse of the strategic-
transit requirement: where the Romans faced several particularly powerful
enemies across the limes, it was useful to separate these enemies from one

LEGEND

△ ▲ – JULIO-CLAUDIAN AND VESPASIANIC FORTS
▽ ▼ – DOMITIANIC FORTS
○ ● – SECOND CENTURY FORTS
▣ – LEGIONARY FORTRESS
······· – RIVER FRONTIER
▮▮▮▮▮ – WALL, PALISADE OR FENCE OF ANTONINE FRONTIER IN FINAL FORM

NIJMEGEN (NOVIOMAGUS)

VETERA

RHINE R.

LOWER GERMANY

NEUSS (NOVAESIUM)

BONN (BONNA)

CHATTI

LAHN R.

TAUNUS MOUNTAINS

ARNSBURG

WETTERAU

MATTIACI

WIESBADEN

HOFHEIM

MAINZ (MOGONTIACUM)

MAIN R.

SELIGENSTADT

ODENWALD

MAIN

WIMPFEN

UPPER GERMANY

RHINE

STRASBOURG (ARGENTORATE)

KÖNGEN

WELZHEIM

SCHIRENHOF

NECKAR R.

HEIDENHEIM

FAIMINGEN

OBERSTIMM

EINING

REGENSBURG (CASTRA REGINA)

ROTTWEIL

DANUBE R.

EMERKINGEN

AUGSBURG (AUGUSTA VINDELICORUM)

SCHWARTZWALD (BLACK FOREST)

TUTTLINGEN

RAETIA

NORICUM

WINDISCH

LAKE CONSTANCE

2. The Advancing Frontier in Germany

another by forming a salient between them. This salient would also provide an added layer of security for the roads and populations at its base. In this situation, too, the mere length of the frontier became a secondary priority.

What Domitian's limes on the Taunus achieved tactically, Trajan's limes in Dacia would achieve on a strategic scale. Until Trajan's conquest of Dacia, the imperial perimeter followed the course of the Danube all the way to the delta on the Black Sea.[122] A series of legionary bases stretched from Raetia to what is now Bulgaria, and the intervals between the bases were covered by a somewhat denser network of auxiliary forts that reached into modern Dobruja in Romania. The two Danube fleets, the Classis Pannonica, which operated upstream from the Iron Gates, and the Classis Moesica below, complemented the watchtowers, signal stations, and patrols on the left bank of the river.

The most important single threat to this long frontier, which spanned the territories of six important provinces, came from the Dacians. Their power was centered in the high ground of Transylvania, and they had already formed a centralized state under a ruler named Burebista in the first century BCE. Their expansionism had put them in violent contact with Roman armies even earlier.[123] This propensity for centralization, rare among the peoples of Europe except for the Romans, made them dangerous enemies for any power whose lands reached the Danube: Dacian raids were directed at the entire vast arc from what is now Vienna to the Black Sea. Under Augustus, the Dacian problem was alleviated, but not solved, by punitive expeditions and reprisal operations.[124] Under Tiberius diplomacy was tried, but the Dacians could not be turned into reliable clients, perhaps because they had gold of their own.[125] The Romans therefore used the Sarmatian Iazyges, installed between the Tisza (Theiss) and the Danube, to keep Dacian power away from that stretch of the river.[126]

By the time of the Flavians, the Roxolani, another horse-riding Sarmatian nation, occupied the plains along the lower course of the Danube. Tacitus recorded (*Histories*, 1.79) their ill-fated raid of 69 across the Danube and into Moesia, in which 9,000 mounted warriors were intercepted by the legion III Gallica and cut to pieces as they were retreating, laden with booty.

In 85–86, under Domitian, the Romans again had to fight the Dacians, who had recentralized under the rule of Decebalus. After driving the Dacians back across the Danube following yet another incursion into Moesia, the Romans pursued them, but suffered a serious defeat; in 88 this was avenged by a successful strategic offensive, which culminated in a great victory at Tapae, in the

plain beyond Turnu Severin.[127] Perhaps Domitian intended to follow up this
victory in the field with an advance on Sarmizegethusa, the seat of Decebalus
and his court, but the revolt of Antonius Saturninus, legate of Upper Germany,
intervened in January 89. By then, the client system on the Danube sector was
crumbling, and this drastically restricted the strategic options open to the
Romans.

The Romans faced three major tribal agglomerations in the region, which
had been under a loose but effective form of diplomatic control since the time
of Tiberius: the Marcomanni, the Quadi (centered in the general area opposite
Vienna), and the Iazyges. There is no evidence that any of the three helped
Domitian's forces in the campaigns of 85 and 88 CE against Decebalus. But
neither had they hindered, which was good enough for the Romans, who could
not have mounted simultaneous offensives across the 600 miles of the Danube
border from Dacia to the Marcomannic territory west of the Elbe. The acqui-
escence of these powerful neighbors was essential for any strategic offensive
against Dacia, just as the acquiescence of the Dacians was essential for any
strategic offensive against the Marcomanni, Quadi, or Iazyges. Thus, when
the Marcomanni, Quadi, and Iazyges all threatened war,[128] Domitian was
forced to make peace with Decebalus on the basis of the status quo ante and a
technical aid program.[129] For the next several years, there was inconclusive war
against Germans and Sarmatians upstream from Dacian territory, which itself
remained at peace.[130]

It is in this context that Trajan's wars with Decebalus and his ultimate
conquest of Dacia must be seen. It was once de rigueur for scholars to con-
trast Trajan's heedless adventurism with Hadrian's peaceful disposition.
Across the Danube, as across the Euphrates, Trajan supposedly left deep sa-
lients that marked his grandiose conquests but lengthened the imperial pe-
rimeter needlessly. Trajan's annexation of Dacia has also been explained as a
throwback to the days of predatory—indeed gold-craving—imperialism and
unlimited expansionism.[131]

A defensive interpretation is more sensible:[132] the strength of Trajan's army,
as 13 legions in both wars, shows how powerful a state Decebalus had or-
ganized. No economical frontier strategy on that sector was compatible with
the survival of so strong a neighbor. It is noteworthy that loyal Pliny (*Panegy-
ricus* 16) claimed greatness for his employer for his moderation, not for heroic
conquest: "he neither fears nor provokes wars" ("*Non times bella, nec provocas.
Magnum est, Imperator Auguste*"). As has been pointed out,[133] Trajan concluded

Map 2.5. The Second Century Frontiers in Europe

LEGEND

III ITALICA	LEGION
CHAUCI	BARBARIANS
RAETIA	PROVINCE
||||||||||||||	RIVER FRONTIER
• • • • • •	NON-RIVER FRONTIER

NOTES

V MACEDONICA WAS DEPLOYED POST 166 C.E.
II ITALICA WAS DEPLOYED POST 170 C.E.
III ITALICA WAS DEPLOYED POST 170 C.E.

VISTULA R.

DNIESTER R.

QUADI

ARNUNTUM

I ADIUTRIX
AQUINCUM
(BUDAPEST)

HIGH CARPATHIAN MTS.

COSTOBOCI

POROLISSENSIS
POTAISSA
V MACEDONICA
XIII GEMINA
APULUM

CARPI

IAZYGES

APULENSIS
DACIA

LOWER
PANNONIA
SIRMIUM
IV FLAVIA
VIMINACIUM
VII CLAUDIA

MALVENSIS

ROXOLANI

XI CLAUDIA

RATIARIA
DANUBE R.
OESCUS
I ITALICA

BLACK
SEA

UPPER
MOESIA

LOWER MOESIA

THRACE

MACEDONIA
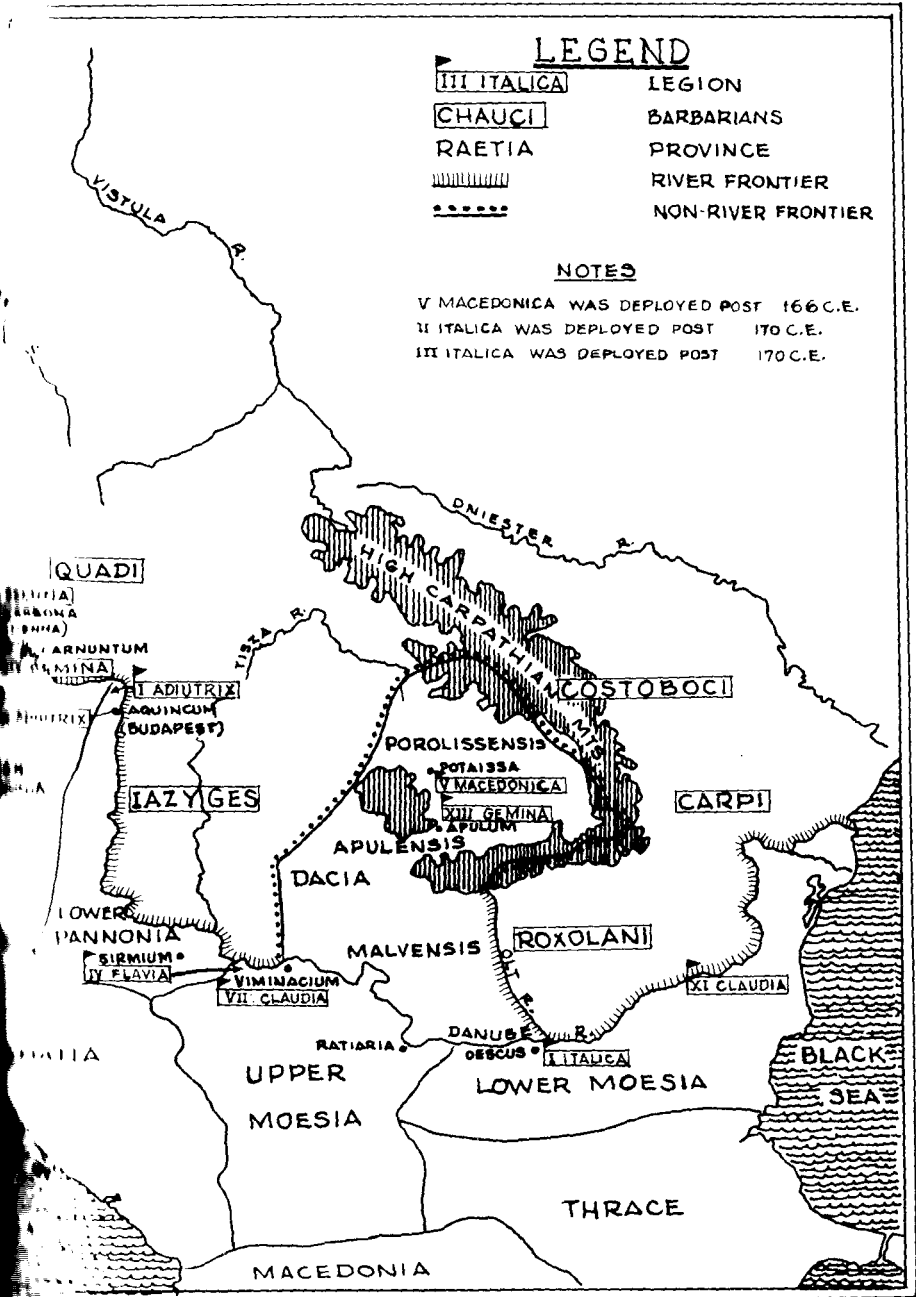
his first Dacian war of 101–102 with another attempt to convert Dacia into a client state, refraining from conquest. It was Decebalus who provoked the second war of 105–106 by breaking the terms of the treaty of 102; and even that second war was not followed by total conquest, because only Transylvania was provincialized, while the lands on either side were left to the Sarmatians.

It is certainly true that once Dacia was conquered, after Trajan's second war against Decebalus in 106, the frontiers of the new province of Dacia formed a deep wedge centered on the Sarmizegethusa–Apulum axis, eventually adding more than 370 miles to the length of the imperial perimeter.[134] On the map, the new province presents a classic profile of vulnerability. This impression is strengthened by the nature of the military deployment left in place once the campaigns were over. The salient's center of gravity was not at its base, but toward the apex, because the legionary base at Apulum in the Maros valley was nearer to the northern edge of the Carpathians than to the Danube. Neither then nor later was the Dacian limes as a whole enclosed with a wall system; it remained organized as a network of independent strong points astride the main invasion routes, guarding the major lines of communication.[135]

This new frontier, which makes so little sense in the light of the superficial strategy of small-scale maps, becomes highly rational in the light of the actual priorities of Roman policy: the elimination of Dacia's independent power provided the necessary conditions for a restoration of Roman diplomatic control over the Germans and Sarmatians of the entire region. Both deterrence and positive inducements (i.e., subsidies) would be needed to keep the Marcomanni, Iazyges, and Roxolani from raiding the Danube lands; and as long as Decebalus remained in defiant independence, the deterrent arm of the policy would be fatally weakened. As a province, Dacia would satisfy the strategic priorities of the day by providing valuable access to other regions, while also yielding some material wealth to the empire.[136] But it was as a strategic shield for the region as a whole that Dacia was most valuable.

Following the Sarmatian attacks of 116–119, the flanks of the Dacian salient were narrowed through the evacuation of the western Banat to the north and Muntenia to the south. By 124–126 Dacia had been divided into three provinces (Malvensis, Porolissensis, and Apulensis), and at least 65 separate outposts were built to provide a defense-in-depth of Dacia Porolissensis. This Limes Porolissensis formed the outer shield of the entire system of Danubian defense, with rear support provided by the legion XIII Gemina, stationed in Apulum. On either side of the Dacian salient were the plains occupied by the

subsidized Sarmatians: Iazyges to the west and Roxolani to the east. Had Rome been weak and the Sarmatians strong, the Dacian provinces would have been vulnerable to encirclement (across the neck of the peninsula of Roman territory on the Danube); but with Rome as strong as it then was, the Dacian frontier effectively separated the Sarmatians on either side and weakened their combined power. Though subsidies might still be required, the strong auxiliary garrisons of Dacia Malvensis (on the Danube) and Dacia Porolissensis (on the Carpathian) as well as the legion in Dacia Apulensis would suffice to complement the inducements with the threat of retaliation for any transborder raiding.[137]

The elimination of the Dacian threat provided security for the Dobruja and all the sub-Danubian lands. With security there came first agricultural prosperity and then urbanization. The coastal Greek cities of the Dobruja recovered swiftly from the effects of insecurity, while new cities emerged in the entire region, from Thrace to modern lower Austria, where Carnuntum, head city of Pannonia Superior, attained some 50,000 inhabitants. (Its remains halfway between Vienna and Bratislava extend over an area of 10 square kilometers.)

The legionary bases at Ratiaria and Oescus on the lower Danube were left in the deep rear by the conquest of Dacia, and the legions were withdrawn because the sector was no longer of military significance. But the two localities did not wither away. Instead, they became civilian settlements, with the high status of *coloniae*.[138] Once the scene of raid and counter-raid, after Trajan's conquest, the Danube valley could contribute to the human and material resources of the empire, augmenting its fundamental strength.

The only priority of Roman frontier policy that the Dacian frontier did not satisfy was the lowest military priority, because the overall imperial perimeter was lengthened rather than shortened. This did not, of course, affect imperial communications, which could now follow interior routes just as short but much more secure. Nor is the impression of vulnerability given by the map of the Dacian frontier justified. Aside from its obvious topographic advantage, the Limes Porolissensis was a salient only in purely military terms: its flanks east and west were not open invasion axes, for they were occupied by peoples under Roman diplomatic control.[139]

Though the conquest of Dacia thus reinforced Rome's strategic and diplomatic control of the entire Danube frontier, the Limes Porolissensis was still something of an outpost, or rather a whole series of outposts centered on the XIII Gemina at Apulum, the only legion left in place once the frontier was

LEGEND
- □ - AUXILIARY FORTS (IN DACIA ONLY)
- ▭ - HIGHWAY
- CARPI - BARBARIANS
- --- - OPEN LAND FRONTIER
- IV FLAVIA - LEGIONARY BASE

BASTARNAE

QUADI

DANUBE R.

I ADIUTRIX AQUINCUM

LOWER
PANNONIA

IAZYGES

CARPATHIAN MOUNTAINS

CARPI

DNIESTER R.

POROLISSUM

(LIMES POROLISSENSIS)

TYRAS

POTAISSA

XIII GEMINA
APULUM

DANUBE

UPPER
MOESIA

AXIOPOLIS TOMI

DUROSTORUM
XI CLAUDIA

DOBRUJA

BLACK SEA

RATIARIA OESCUS NOVAE
I ITALICA

DACIA

LOWER
MOESIA

NAISSUS

DALMATIA

MACEDONIA

PHILIPPOPOLIS

ADRIATIC
SEA

THRACE

BYZANTIUM

Map 2.6. The Dacian Conquest

organized.[140] As is true of any outpost, as long as the sector as a whole was securely held, the Dacian salient added to this security. Far from being vulnerable to encirclement, the salient itself could be used as a base to encircle the Iazyges to the west or the Roxolani to the east: Roman forces could advance on the Drobeta–Apulum highway and then turn to attack the Sarmatians in the rear. The salient was used in this way when the forces of C. Velius Rufus seemingly attacked the Iazyges in the rear after an advance north of the Danube and west across the river Tisza (Theiss), circa 89. But the military worth of an outpost declines and finally becomes a liability as the security of the baseline diminishes. Thus, in the great crisis of the third century, when Rome lost control of the Sarmatians on either side of the salient, the Limes Porolissensis did become a vulnerable salient liable to be cut off, as well as a drain on the resources of the sector as a whole. It was finally abandoned during (or just after) the reign of Aurelian (270–275). Numismatic evidence proves that Roman power persisted in Dacia Malvensis (Transylvania west of the river Olt) until then.[141] The Dacian limes was indeed cost-effective in ensuring Roman military and diplomatic control over the entire region until external factors compelled its abandonment.

On the eastern front, from eastern Anatolia through Syria to the Red Sea, the Julio-Claudian system of imperial security had been based on three elements: the chain of client states, which absorbed the burdens of day-to-day security against internal disorder and low-intensity external threats; the buffer of Armenia; and the army of Syria, four legions strong until the Armenian crisis of 55.[142] Of these three elements, only Armenia's status as a buffer state was not wholly in Roman control. From the time of the Augustan settlement until the Flavian era, the Armenian question required constant management, for Armenia was crucial to Roman security in the sector and equally crucial for the security of the Arsacid state of Parthia. If Armenia were under some form of Roman suzerainty, or even a condominium such as that established under the Neronian compromise ("Arsacid secondgeniture and Roman investiture"),[143] then Syria's army could defend Cappadocia and Pontus as well as Syria from Parthian attack. If, on the other hand, the Arsacids were free to station armies in Armenia, then each of the two sectors would require a frontier army of its own, independently capable of containing Parthian attacks until the arrival of strategic reinforcements. Without an advanced base, Parthian forces advancing toward Pontus and Cappadocia by way of the difficult routes across Armenia could move no faster than the legions of Syria advancing to intercept them up

the Euphrates. Hence the Parthians could not hope to surprise or outmaneuver the Romans in launching an attack against *either* sector.

This was the precise meaning of Armenia's status as a buffer zone, and it is this factor that explains the rationality of Nero's diplomatic and military offensives of 55–66 CE. The Parthian ruler Vologases I had driven Radamistus, a usurper, from the throne of Armenia, giving his throne to his fellow Arsacid, Tiridates.[144] This act suggested the possibility that Arsacid armies would now have free use of Armenian territory, and therefore that Cappadocia and Pontus could no longer be secure without armies of their own.[145] In 55 Nero's great general Cn. Domitius Corbulo was appointed legate to Cappadocia and provided with powerful expeditionary forces, including III Gallica and VI Ferrata from the army of Syria, IV Scythica from Moesia, and a complement of auxiliary forces.[146]

Corbulo engaged in diplomacy while working up (with retraining) a fighting army out of garrison troops, and then successfully launched a difficult campaign in the difficult terrain of Armenia, conquering the two major centers in the country, Artaxata and Tigranocerta. The status quo ante having been restored, a reliable client prince, Tigranes, was duly appointed king of Armenia and provided with a small 2,000-man guard force.[147] But following an Armenian raid into Arsacid territory, Vologases resumed the war, after the terms he offered were rejected by Rome.[148]

Earlier, the Romans had offered to recognize the Arsacid Tiridates as king of Armenia, provided he accepted a Roman investiture, but according to Tacitus (*Annals*, 8.37–39) this offer was rejected by Vologases. After Corbulo's victory, the balance of power shifted, and this naturally curtailed the scope of diplomacy. It may also have induced the Romans to contemplate annexation.[149] It took the defeat of L. Caesennius Paetus, sent to take charge in Cappadocia when Corbulo left to take over the Syrian sector, to restore a balance of power. After a successful show-of-force invasion by Corbulo, now in supreme command and provided with a high-grade legion drawn from Pannonia (XV Apollinaris),[150] a diplomatic settlement was finally reached (Tacitus, *Annals*, 15.27–30). In the year 66 Tiridates was crowned in Rome as king of Armenia in a lavish ceremony whose cost scandalized Suetonius (*Nero*, 13).

It was no great victory that Rome won in the Armenian settlement; indeed, it may have seemed that after five years of desultory war, the situation had merely reverted to the position of 54 CE, when Vologases had originally placed his brother on the Armenian throne.[151] Tacitus seemed to hint at an uneasy balance

CASE ONE
ARMENIA UNDER ARSACID CONTROL. ECONOMY-OF-FORCE PARTHIAN DEPLOYMENT AGAINST CAPPADOCIA AND SYRIA.

CASE TWO
ARMENIA UNDER CONDOMINIUM – NO PARTHIAN FORCES. ECONOMY-OF-FORCE ROMAN DEPLOYMENT TO DEFEND CAPPADOCIA AND SYRIA.

PONTUS – ROMAN CLIENT-STATE
OSROENE – ARSACID CLIENT-STATE
IMPERIAL BOUNDARIES

CASPIAN SEA

CAUCASUS MOUNTAINS

ALBANI

IBERI

COLCHI

BLACK SEA

• ARTAXATA

MEDIA

LAKE VAN

A R M E N I A

ADIABENE

• TIGRANOCERTA

• NISIBIS

P A R T H I A N   E M P I R E

• CTESIPHON

TIGRIS

EUPHRATES R.

SELEUCEIA

TRAPEZUS

SATALA

PONTUS

ARMENIA MINOR

SOPHENE

SAMOSATA

• EDESSA

• CARRHAE

OSROENE

COMMAGENE

ZEUGMA

SURA

ANTIOCH •

S Y R I A

• EMESA

NO LEGIONS

CAPPADOCIA

BITHYNIA ET PONTUS

GALATIA

CILICIA

CYPRUS

4 LEGIONS

KINGDOM OF AGRIPPA II

PERAEA

JUDAEA

MEDITERRANEAN

0   100   200

MILES

when Corbulo acknowledged that Vologases had fled Armenia but that his own legions must return to defend Syria. Yet this was a case of strategic gain that did not result from a grandiose victory. The nominal condominium sufficed to ensure the security of the Pontic-Cappadocian sector, thus obviating the very great cost of deploying a counterpart to the Syrian army along the upper Euphrates.[152]

As we shall see, the Flavians eventually abolished what was left of the client-state system on the eastern front, and this naturally required for the first time the deployment of permanent legionary garrisons in eastern Anatolia. The legion XII Fulminata was permanently stationed at Melitene in Cappadocia, on the central route between Armenia and Cappadocia, and the legion XVI Flavia Firma was probably in Satala (near a more northerly crossing of the Euphrates) in the territory of the former client state of Lesser Armenia.[153]

The eastern frontier that Trajan inherited, though neater than the confused patchwork of client states of the Julio-Claudian era, was still highly unsatisfactory.[154] From the ill-defined borders of the Nabatean client state stretching from east of Judea south into northwestern Arabia, the frontier cut across the desert by way of Damascus and Palmyra to the Euphrates, probably reaching the river above Sura. From there it followed the river through Zeugma to the north until its eastward turn into Armenia, then overland to the Black Sea to a point east of Trapezus (currently Trabzon). As drawn on a map of the empire at the accession of Trajan, this frontier was scarcely tenable. Largely as a result of the distribution of rainfall, Roman territory in the Levant was confined for practical purposes to a narrow strip (mostly less than 60 miles wide) almost , ∞ miles long from Petra to Zeugma. Though theoretically in Roman hands, the lands to the east of this fertile crescent were mostly desert, which required no security force for border defense against low-intensity threats (point defenses would suffice) but which, on the other hand, could not support the substantial forces that would be needed to meet any high-intensity threats. The Romans were in the uncomfortable position of holding a long, narrow, and desirable strip with the sea to the west and a vulnerable flank to the east. Opposite Antioch, the greatest city of the region, the depth of the territory controlled by Rome was scarcely more than 100 miles—not enough to contain a Parthian invasion until forces more numerous and better than the Syrian legions could arrive from Europe.

These geographic factors, with which every power in the Levant has had to contend, made the Euphrates frontier inadequate; Trajan's Parthian Wa-

(1 p 11) has been explained as an attempt to establish a "scientific" frontier beyond the river.[155] The only possible perimeter that would satisfy the concurrent requirements of strategic depth, rear-area security, and economy of force in a postwar frontier deployment had to follow the course of the river Khabur to the western edge of Jebel Sinjar, then continue east along the high ground toward the Tigris and north again into Armenia.[156]

Though by no means straight, this frontier would have had advantages far greater than mere geographic simplicity. If strongly manned, the Khabur–Jebel Sinjar–Tigris line could provide a reliable defense-in-depth for both the Antioch region to the west and Armenia to the north astride the major east-west invasion axes from Parthia leading to northern Syria and into southern Cappadocia. Moreover, this double L-shaped frontier could also interdict the advance of armies moving westward, whether above or below the Euphrates, and it would itself outflank any westward advance into southern Armenia. Finally, there was enough rainfall (8 inches or more per year) to supply the troops with food extracted from local agriculturists if imperial taxation could become as efficient as it was elsewhere at the time, especially once the consolidation of the frontier encouraged the growth of civilian settlements. The only real alternative to this line would have been a frontier running along the edge of the Armenian plateau, but this would have left Roman forces too far from Ctesiphon, the Arsacid capital, to intimidate its rulers.

Trajan's Parthian War was not, however, a limited border rectification offensive, nor is it usually considered a purely strategic enterprise; wars chosen rather than imposed rarely are. Its origins conform to the stereotyped pattern of Roman-Parthian relations: the Arsacid Osroes (king of Parthia since 110) replaced a fellow Arsacid, Axidares, king of Armenia by Roman approval, with another, Parthamasiris, who had not been approved by Rome as required by the terms of the agreement.[157] By the end of 113, Trajan was in Antioch "to review the situation."[158]

Between 113 and 117, diplomacy failed. It is uncertain to what extent each side seriously attempted to resolve the crisis peacefully, though Osroes sent an ambassador to Athens to meet Trajan on his way east, and Trajan also seems to have offered an opening to a peaceful settlement by making himself available at Satala to an invited gathering of client kings from the Caucasus. Parthamasiris could have come to this meeting, but did not. We can read in the fragmentary sources that Trajan's forces advanced and conquered, eventually capturing Ctesiphon and the golden throne of the Parthian kings (Osroes having fled),
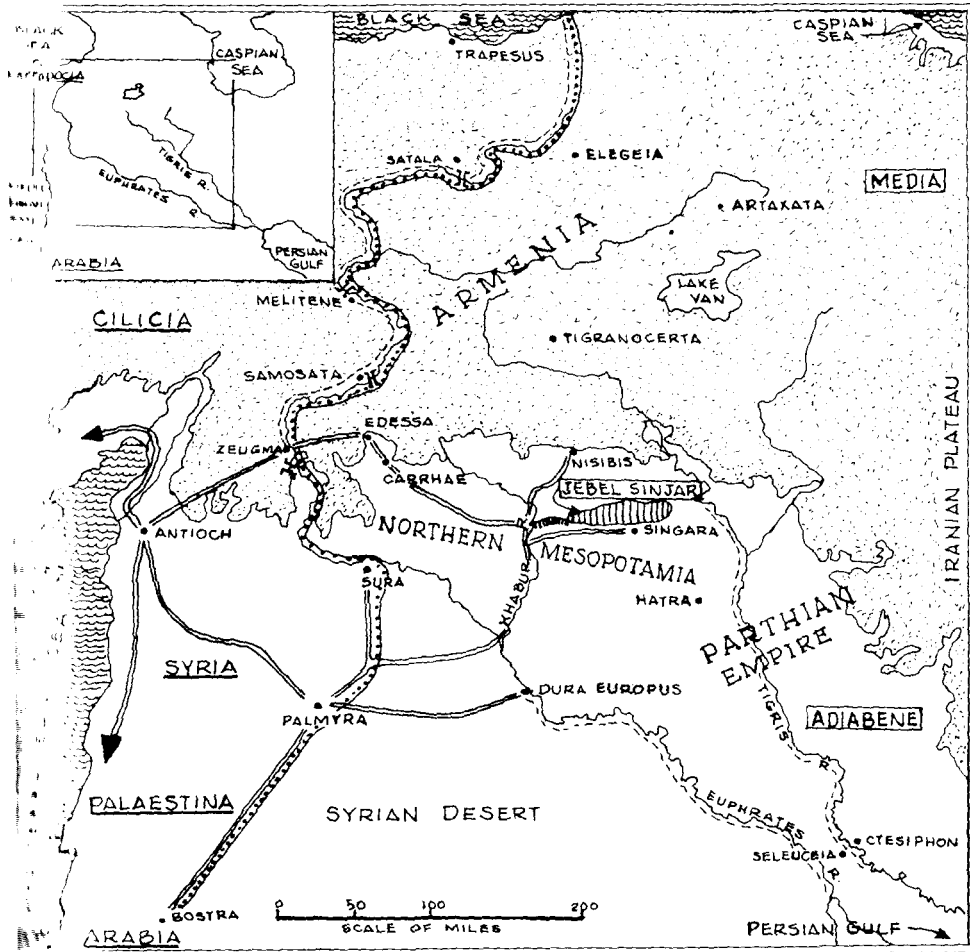
Map 2.8. The Parthian Empire and the Roman East

...ted the way to the Persian Gulf; and advanced across the Tigris into remote Adiabene, which seems to have become the short-lived province of Assyria.

One chronology that is more plausible than proven begins in 114 with the conquest of Armenia and northern Mesopotamia north of the Jebel Sinjar line; both were annexed, meaning that the measuring out of territory for fiscal

purposes was imminent. In 115, southern Mesopotamia and Adiabene were also conquered and annexed; that winter, Roman troops entered Ctesiphon, the seat of the Arsacid empire that in the Iranic manner had no real capital, given that instead of a unitary state there was a federation of satrapies with many capitals and none. In 116 there came the scouting descent to the Persian Gulf and the outbreak of local (nativist?) revolts in the newly conquered lands and also by the Jews across the Levant to Cyrenaica, with catastrophic results in Cyrene, Egypt, and Cyprus. In 117 the revolts were suppressed with much damage, but the Romans started to withdraw (facing a counteroffensive?), and 117 is also the (certain) date of Trajan's death.[159]

Provinces were being organized, client kings were being enrolled into allegiance to Rome in place of older Parthian loyalties, and a fiscal administration for the India trade was apparently being organized—when disaster struck. Since 114, Trajan had advanced farther and conquered more than any emperor since Augustus, but by the late summer of 117 he was dead in Cilicia, and little remained of his conquests. Parthamaspates, placed in Ctesiphon as the Roman client king of a diminished and dependent Parthia, was losing control, and the lesser client kings were losing either their thrones or their imposed Roman allegiance.

Hadrian, the new ruler of Rome and Trajan's former lieutenant in the East, completed the strategic withdrawal that Trajan had begun. The new provinces were abandoned, and by the end of 117 what remained of Trajan's vast conquests was a confirmed claim of suzerainty over Armenia and Osrhoene—not a bad haul actually, for a war that did no lasting damage.[160] Dio's accusations (68.29.1) that Trajan's Parthian War was a pointless quest for glory and that he was chagrined by his inability to emulate Alexander have been given too much credence.[161] Another explanation is the rational but nonmilitary goal of controlling the trade route to India. But a strategic purpose, the establishment of a more secure Khabur–Jebel Sinjar–Tigris frontier, has also been adduced, and to this writer it seems the most plausible.

What is certain is that until his further conquests across the Tigris, down to Ctesiphon, and beyond, Trajan's policy in the East had been consistent with that of the Flavians. Like them, he continued the process of political consolidation, with the annexation of Nabatean Arabia in 106. Like them, he deployed a legion to secure the new province (based at Bostra, renamed Nova Traiana), and like them, he extended the road infrastructure, building a major new highway across eastern Syria and down to the Red Sea by way of Bostra and

Petra.[162] The establishment of a defended salient down the Euphrates, up the Khabur River, and across the ridge of the Jebel Sinjar would not have been inconsistent with the established methods of frontier reorganization—if, that is, Armenia north of the Nisibis–Zeugma axis was left as a client kingdom.

For an empire whose resources of trained military manpower had hardly increased since the days of Augustus, the conquests of Trajan were too extensive to be successfully consolidated. Nor did the entrenched cultures of the region offer much scope for long-term Roman policies of cultural-political integration (with the exception of the most Hellenized cities). Above all, the further conquests of Trajan could not be efficient: the vast investment of effort—which would inevitably result in diminished security elsewhere—could only be compensated by added security against Parthia or by the acquisition of added resources in place. Parthia was not strong enough to merit such a vast military effort, but it was resilient enough to prevent the profitable incorporation of the new provinces.

The Decline of the Client System

When Vespasian concentrated his forces at Ptolemais in the winter of 67 while preparing to advance into Judea, then in full revolt, four client rulers, Antiochus IV of Commagene, M. Julius Agrippa II in the Galilee, Sohaemus of Emesa, and the Arab chieftain Malchus, contributed a total of 15,000 men to his army, according to Josephus (*The Jewish War*, 111.4.2). Aside from Vespasian's three legions (XV Apollinaris, V Macedonica, and X Fretensis),[163] which were to be fully engaged in the sieges and guerrilla warfare of the Jewish War, there were only four legions for the entire Levant. One of these (III Gallica) was redeployed to Moesia in 68 CE, so that only the three Syrian legions remained to cover the vast eastern sector from the Red Sea to the Black, and one of these (XII Fulminata) was also committed to the Jewish War for a time.[164]

With the new legion I Italica, Nero's army comprised twenty-eight legions, so that counting the four legions in Syria, no less than one-quarter of Rome's total legionary strength was already engaged in that one sector. It is doubtful whether any additional legionary forces could have been brought in, for example, to counter Parthian pressure, without dangerously unbalancing the legionary-auxiliary ratio elsewhere, risking internal civil disorder in less consolidated areas, or exposing frontiers to attack. The system was still highly elastic, but with the provision of the three legions for the Jewish War, this flexibility was greatly depleted.

Although there was peace between Rome and Parthia at the time (as a result of Nero's compromise over Armenia) and although there were some *auxilia* free from the Judean commitment in the region, the concentration of forces against the Jews was rendered possible only by the glacis of client states and client tribes that shielded the eastern borders of the empire. Without this support, it would have been highly imprudent to commit very nearly the full disposable legionary reserve of the empire to the Jewish War (three legions out of twenty-eight), with no security for the long exposed flanks other than that provided by three Syrian legions of indifferent quality, a concern made explicit by Tacitus (*Annals*, 13.35): "*Sed Corbuloni plus molis adversus ignaviam militum quam contra perfidiam hostium erat: quippe Syria transmotae legiones, pace longa segnes, munia castrorum aegerrime tolerabant.*"[165]

Indeed, the client system of the East was then revealed at its most effective. To the south in Sinai and on the eastern borders of Judea, the Nabatean kingdom of Arabia absorbed and contained the endemic marauding of the nomads,[166] and several minor client states remained in Syria. On the Euphrates, Osrhoene was a neutral buffer state: essentially Parthian in orientation but unlikely to cooperate in hostility toward Rome. Across the river, Osrhoene faced not Roman territory but the key client state of Commagene, whose loyalty was as yet unquestioned. Farther north, near the Black Sea, was Lesser Armenia under Aristobolus; it, too, was paired across the Euphrates with another client state, Sophene, ruled by another Sohaemus, according to Tacitus (*Annals*, 13.7): "*et minorem Armeniam Aristobulo, regionem Sophenen Sohaemo cum insignibus regiis mandat.*" In practice, this meant that both the chronically sensitive borders with Parthia and the avenues of nomadic raiding were shielded by powers beholden to the empire, but not *of* it in a full sense. The client states deployed their own forces to contain minor attacks, and their resistance even to major attacks, whether successful or not, would allow time for an eventual disengagement from Judea to free the army of Vespasian for action elsewhere.

By 69 Nero was dead, Vespasian had been proclaimed emperor, and a civil war was under way. Again the client states stood Vespasian in good stead: Tacitus recorded that Sohaemus of Sophene, Antiochus IV of Commagene (who had great wealth to contribute), and other client rulers extended their support to the Flavian cause; there is no record of any client state's opposition or even of unfriendly neutrality, in line with Tacitus (*Histories*, 2.81). In 70 CE, when Titus set out for the final campaign of the Jewish War, Tacitus once again recorded the troop contributions of the client rulers; the list included a large

number of Arabs, motivated by neighborly hatred: "*et solito inter accolas odio intensa Iudaeis Arabum manus*" (*Histories*, 5.1).

Yet it was none other than Vespasian, the direct beneficiary of the client-state system, who presided over its substantial dismantlement. Although Pontus, ruled by Polemo II, had already been annexed under Nero in 64,[167] the regional structure of indirect control was still essentially intact. But within four years of Vespasian's accession, Lesser Armenia, Sophene, and Commagene had all been annexed.[168] The fate of the lesser client rulers and their states is unknown, and the only survivals of any importance that can be documented are the Galilean statelet of Agrippa II and Nabatean Arabia (which were not annexed until after 92 and 106, respectively),[169] the petty kingdoms of the Caucasus, Palmyra, and the Bosporan state centered on Crimea.[170]

Scholars have explained Vespasian's annexationist policy as one facet of his more general policy of centralization.[171] That is supported by Suetonius (*Vespasianus*, 8), who noted the annexation of Commagene and Cilicia Trachea together with the provincial reorganization of Achea, Lycia, Rhodes, Byzantium, and Samos.

In Vespasian's overall attempt to restructure the empire on a new basis, administrative centralization and the territorialization of what was still in part a hegemonic empire were mutually complementary. Hence the strategic goals of the Flavians and the survival of the client-state system were mutually exclusive. It is true that there were still some minor client states in the East when Trajan came to hold court at Satala in 114: the Arsacid ruler of Armenia did not present himself, but the petty kings of the Albani, Iberi, and Colchi, among others, did.[172] Moreover, in the wake of the retreat that followed Trajan's Parthian War, Osrhoene was left behind as a new client state, under Parthamaspates, who had been Trajan's candidate for the Parthian throne.[173] But although the terminology was unchanged, the client states that survived annexation into the second century were not like the old. Though difficult to define in specific, legalistic terms, the change in the relationship between Rome and the client states had important strategic implications.[174]

The annexation of the major clients of Anatolia and Syria had replaced the "leisurely processes of diplomacy"[175] from the Black Sea to the Red with the presence of Roman legions. With the deployment of direct military force where before there had been only a perception of Rome's potential for ultimate victory, there came the need to provide new administrative and communication infrastructures. Under the Flavians, a network of highways was constructed in

Anatolia; also, very likely, a frontier-delimiting road from Palmyra to Sura on
the Euphrates was built (under the supervision of Marcus Ulpius Traianus,
father of the future emperor).[176] Behind the highways a chain of legionary
bases spanned the entire sector from Bostra in the new province of Arabia to
Satala, only 70 miles south of the Black Sea.

Under Vespasian, the territories of Galatia, Pontus, Cappadocia, and Lesser
Armenia were at first amalgamated into an enormously enlarged Galatian
province of 112,000 square miles. Cilicia Aspera, formerly part of Antiochus
IV's possessions, was combined with Cilicia Campestris (until then part of
Syria) to form a new province of Cilicia. When in 106 Rabbel II, last of the
Nabatean rulers, was deposed, Arabia too became a very large province, stretch-
ing from modern Daraa in southern Syria to Medain Salih, deep in the Hejaz,
and including the Sinai Peninsula. Trajan must have found the greater Galatia
of Vespasian too unwieldy: by 113 at the latest, it had been divided into its ma-
jor constituent elements, Galatia and Cappadocia.[177]

The reorganization of the eastern sector of the empire required a sharp in-
crease in legionary deployments: the number rose from the Julio-Claudian
norm of four legions, all in Syria, to an eventual total of eight by the time of
Hadrian.[178] It has been argued that because the legionary buildup was pre-
Flavian (there were six full legions in the Near East by 67), then the entire ar-
gument that the Flavian reorganization with its reduction of the client states
required additional legionary support is wrong. But this objection fails to rec-
ognize that the additional legions were *expeditionary*, sent to fight campaigns in
Armenia and to suppress rebellion in Judea, rather than garrison troops,
whereas the static security needs of the frontier in terms of guard, patrol, and
reaction forces had doubled by the time of Hadrian, as compared to the troop
requirements under Augustus. Three of the additional four legions (two in
Cappadocia and one in Arabia) were deployed in territories that had been man
aged by clients under the Julio-Claudians, but had become provinces in need
of forces sufficient for a preclusive defense. It is evident that it was their status
as provinces, which directly resulted from the dissolution of the preexisting
clients, that necessitated an increase in the number of legions.

Thus the needs of the eastern front had doubled, while the total number of
legions in the Roman army had increased, at most, by only one. The built in
reserve afforded by the previous pattern of legionary deployments was there
fore virtually exhausted: when entire legions were removed for short term re
deployments, the forces that remained were insufficient. It is this, much more

than the *tactical* reorganization of frontier defenses (which had no inherent effect on elasticity), which deprived the imperial army of its inherent flexibility. In the absence of client-state forces ready to suppress low-intensity threats and of client-state territories able to absorb high-intensity attacks, it was the central forces of the empire itself that had to meet both kinds of threat. Vespasian himself already had to deal with "frequent barbarian raids" in Cappadocia (i.e., greater Galatia), and in 75 the king of Iberia (in the Caucasus) had to be helped to fortify the approaches to the Dariel Pass, the Caucasian Gates, as noted by Suetonius (*Vespasianus*, 8): "*Cappadociae propter adsiduos barbarorum incursus legiones addidit, consularemque rectorem imposuit pro eq. R.*"

The processes of client-state diplomacy may have been too leisurely, and perhaps disturbingly intangible, for a soldier who had risen to become emperor through the highly tangible power of his legions, but the ultimate consequence of annexation was the substitution of an enfeebling dispersion of forces for the virtually costless projection of Rome's remote but dynamic military power. Eventually, some Roman troops—a detachment of the legion XII Fulminata—were even stationed in the remote mountains of the Caucasus. (It must be recognized, however, that the "costless" projection of power could have an opportunity cost nonetheless, and in some cases a substantial opportunity cost: when Cappadocia was annexed, in the year 17 CE, its revenues allowed Tiberius to reduce the auction tax by 50 percent, as recorded by Tacitus in *Annals*, 2.42: "*Regnum in provinciam redactum est, fructibusque eius levari posse centesimae vectigal professus Caesar ducentesimam in posterum statuit.*")

It is clear that a client state such as Hadrian's Osrhoene was outside the empire, just as the old-style client states had been of it, even if not in a legal sense. The difference was intangible but all-important—a matter of expectations. The old-style clients understood that their status could be revoked at any time to assert direct imperial control. But with the new-style client states, their status was a permanent substitute for that control. The ultimate intention—and capacity for annexation—was visibly gone, and with it went the principal incentive to obedience on the part of client rulers intent on delaying the evil day. A critic of this specific argument rejected it on the grounds that there is no evidence that emperors ever appointed client rulers as an "explicitly short term measure" and that the institution's longevity shows that client states were not just a stopgap measure prior to annexation in due course.[179] That may be so, but there is no need to view earlier clients as just temporary in order to argue that the system was degraded once surviving client rulers could see that the

empire was less capable of annexation. That surely allowed them a much greater freedom of action—too much so for imperial security, especially if there was a powerful Iranian state at the time.

Under the Julio-Claudians, the stronger a client state was, the better it could fulfill its diverse security functions. An empire that was perceived as capable of further expansion was also an empire that could keep even powerful clients in subjection. Not so under the new system, in which the only satisfactory clients were those weak enough to be kept in awe by the forces deployed in direct proximity to them. In the absence of the ultimate threat of annexation, only weak clients were safe clients. But their very weakness rendered them less satisfactory as providers of free military services. Strong client states, on the other hand, had now become dangerous, since the bonds of dependence were greatly weakened. Under the earlier system, when different imperial priorities prevailed, and when there was a much greater disposable military strength ready to be sent into action, even Decebalus, the powerful ruler of Dacia, could have been transformed into a highly useful client in the wake of Trajan's first and victorious Dacian war (101–102).[180]

Once defeated but still powerful, a Dacian client state could have assumed responsibility for preventing infiltration and raids on the Daco-Roman frontier and for interdicting Sarmatian attacks. The relationship between the client ruler Decebalus and Rome under the earlier system of empire would have been shaped by the plain realities of power: Decebalus, kept in subjection by the ultimate threat of total war and deposition, could have complied overtly with Roman security desiderata without fear of domestic opposition. Confronted with the worse alternative of direct imperial rule, the Dacians would have had a powerful incentive to obey a ruler who himself obeyed Rome.

It was not so in the new strategic environment. Faced with an empire that could concentrate superior forces on the Dacian sector only with visible difficulty,[181] and, more important, that was obviously reluctant to expand (shown to all by the failure to annex Dacia in the wake of Trajan's first war), Decebalus was insufficiently intimidated to act as a satisfactory client. And even if he personally had been willing to obey Rome, it is likely that others in Dacia would have demanded a more independent policy. Thus Dacia *had* to be annexed, paradoxically because the empire had become visibly less expansionist and more reluctant to annex. In other words, Trajan had to destroy Dacian independence because the option of indirect rule was no longer available.[182] This is just one more manifestation of the paradoxical logic of strategy: among protago

nists who are cognizant (i.e., not in the position of, say, primitive peoples unaware of firearms), every specific act of force is perceived as a symptom of overall weakness, for otherwise it would be unnecessary.

Although client tribes and client states did not everywhere disappear, as the empire evolved toward a preclusive defense, they became either redundant (if weak) or inherently unstable (if strong). In Britain, the breakdown of the client relationship with the Brigantians of Cartimandua may have been the prime cause of the campaigns of Agricola and later of the establishment of the Solway–Tyne frontier.[183] In Lower Germany, a client structure of sorts did survive, based on the repentant Batavi and the Frisii, Tencteri, and Usipetes.[184] But there, too, the relationship between empire and client had changed: in place of the unpaid tribal militias, which provided for local defense at no direct cost to the empire, as recorded by Tacitus (*Histories*, 1.67)—"*castelli quod olim Helvetii suis militibus ac stipendiis tuebantur*"—regular formations of auxiliary troops had to be deployed to guard the frontiers. As for the vulnerable sector of the lower Danube, the Roxolani had already acquired the dangerous status of neighbors who were both fully independent *and* subsidized.[185]

Foreshadowing the ironic reversal of the client system that was to take place a century later, the nature of the subsidy relationship between clients and empire began to change in character. From its beginnings as a reward to deserving chieftains, the subsidy became a short-term rental of good behavior, which could not be suspended without undermining the security of the border zone. The ultimate ability of the empire to crush the peoples it chose to subsidize was not yet in question, but without a credible threat of annexation, the positive incentives to good behavior had to be augmented in order to maintain the equilibrium between threats and incentives on which any such system of power must necessarily be based.[186] (As of this writing in 2015, Vladimir Putin's Russian Federation, a multinational empire and already the largest state of the world, is striving hard to enlarge its power by making client states of all its lesser neighbors. As it was with Parthamaspates, it is by recruiting client rulers, especially in a succession crisis, that client states are made.)

In the new system of the Roman Empire, neighbors were no longer automatically classified either as targets of conquest or as clients. Instead, they tended to function in the manner of "buffer states," of which Armenia had long been the prototype. The buffer state performs only one military function: it serves as a physical neutral zone between greater powers, providing them with a means of avoiding conflict—which is useful for as long as they want to avoid

conflict. A buffer state cannot be powerful enough to actively resist high-intensity threats (otherwise, it would itself be a power instead of a buffer), nor will it normally assume responsibility for containing low-intensity threats, as client states must to deserve protection. Finally, the government of the buffer state cannot be freely manipulated by one side or the other without provoking the intervention of the rival greater power.

Although the Parthian sector of the empire was sui generis, because Parthia was the only civilized state adjacent to Roman territory, Armenia was not unique in being a buffer state. Osrhoene, just east of the Euphrates, also played this role through many vicissitudes, until the interventions of Romans and Parthians finally destroyed its usefulness as an instrument of conflict avoidance and made it instead one more arena of conflict, featuring, as usual, the installation and deposition of rival candidates to the kingship. In 123 Hadrian replaced the Parthian appointee, Pacorus II, with one of his own, the Parthamaspates whom Trajan had earlier left at Ctesiphon in precarious control of a short-lived Parthian client state. With this, Osrhoene became a new-style client state until a Parthian intervention removed the Roman appointee. In 164, under Marcus Aurelius, Rome intervened once more and continued to do so in rivalry with Parthia until Osrhoene was finally annexed under Septimius Severus in 195.[187]

We have seen how the multiple security, even military, services provided by the old-style clients had served most usefully to preserve the flexibility of the Roman army. But the system was by no means costless: lands that could have been brought within the sphere of the cultural and commercial processes of Romanization were not; peoples that could have been subjected to the full weight of imperial taxation were not. Those opportunity costs were worth paying as long as the disposable military strength so generated was being put to use, however infrequently, to secure further expansion. But once "scientific" borders were everywhere set in final form, encompassing the territory deemed optimal for the empire, the dynamic combination of hegemonic control and offensive military power became redundant, and with it the entire system of client-state peripheries, even if some lingered for centuries.

The Army and the System

"For their nation does not wait for the outbreak of war to give men their first lesson in arms; they do not sit with folded hands in peacetime only to put them in motion in the hour of need. . . . they never have a truce from training, never

wait for emergencies to arise. Moreover, their peace maneuvers are no less strenuous than veritable warfare; each soldier daily throws all his energy into his drill, as though he were in action. . . . Indeed, it would not be wrong to describe their maneuvers as bloodless combats and their combats as sanguinary maneuvers" (*The Jewish War*, 1.11.5). Thus wrote Josephus on the preparedness of the Roman army—in theory; his fellow Jews by then needed no instruction in the matter of Roman efficacy in combat.

Once the empire was mobilized to fight, with first-class leaders in charge of Europe-based first-class legions, it was invincible. The solid infantry of the legions would move into action, complemented by the variegated panoply of auxiliary light infantry, cavalry, and missile troops. Then, even if the enemy could not be drawn out to fight in close combat, or outmaneuvered in field operations, it would still be defeated by the relentless methods of Roman engineering warfare. To fight the Chatti in the Taunus Mountains of Germany, assault roads leading to their fortified high places were cut into the forest; and to fight the last handful of Jewish warriors in the remote desert fortress of Masada, the Romans built an assault embankment 675 feet long and 275 feet high, surmounted by a stone platform another 75 feet high and equally wide. The ability to bring large numbers of carefully trained, cleverly equipped men to the scene of combat, to construct the required infrastructures, to deliver a steady supply of food and equipment to remote and sometimes desolate places—all this reflected the high standards of Roman military organization.[188]

But once the overall strategy of the empire was transformed from hegemonic expansionism to territorial defense, and a preclusive defense at that, the qualities needed by the Roman army changed also. The empire and its armies still needed the ability to deploy large forces under good generals to fight large-scale wars, but now this surge capability was not enough. Under the new system, the army also needed sustained, indeed permanent, defensive capabilities over the full length of a land perimeter that was 9,600 kilometers (5,965 statute miles) without Dacia and 10,200 kilometers (6,338 statute miles) with Dacia; it also had 4,509 kilometers (2,802 statute miles) of coastline, including the Mediterranean's—famously peaceful for two centuries, but an open front once sea raiders arrived in the third century.

The physical requirement was to have forces capable of both guarding the borders against petty infiltration in peacetime and executing mobile operations in wartime. The psychological requirement was to preserve the fighting skills and élan of troops assigned to routine guard and patrol duties, or merely residing

in legionary fortresses, month after month, year after year, not infrequently in dreary places far from the animation of cities, either too often cold and wet, or too often hot and dry. These troops had no ready prospect of enjoying the excitement of war and the joy of taking booty, and little chance of exposure to the leadership of fighting generals or to the natural discipline of battle.

For the Roman army as for any other, it was much easier to elicit a short-term surge response for battle than to maintain adequate standards of training (hard to do and never done, for it must be forever redone) and overall preparedness on a permanent basis. Where troops remained long inactive or in a hospitable environment, as in Syrian cities most famously, but any cities really, they would cease to be soldiers. Tacitus (*Annals*, 13.35, 13.36) recounted the harsh expedients used by Cn. Domitius Corbulo in 55–58 CE to turn the men of his two Syrian legions, III Gallica and VI Ferrata, into fighting soldiers for Nero's Parthian War After weeding out the old and unfit who had been kept on the rolls—men who had never been on guard, who knew nothing of the simplest drills, and who lacked even helmets and breastplates—Corbulo kept the rest under canvas for their training in the bitter winter weather of the Anatolian Mountains. Even so, there were reverses in the first engagements of the following spring, according to Tacitus. Aside from whatever delays may have been caused by the continued attempts to reach a diplomatic settlement, it seems that Corbulo's army was in training for three years before the start of the victorious campaign in Armenia.

Once appointed governor of Syria, Corbulo must have employed all his famous severity on and set a personal example of self-discipline for the two remaining Syrian legions, X Fretensis and XII Fulminata. And yet, in 66 CE, when C. Cestius Gallus, the next governor of Syria, marched into Judea to quell what was still a small uprising, he was soundly defeated. Built around the XII Fulminata and comprising 2,000-man detachments from two other Syrian legions, the expeditionary force also included six cohorts of auxiliary infantry, four cavalry *alae*, almost 14,000 client-state troops, and large numbers of irregulars who had volunteered to join in what must have seemed would be a quick fight with certain victory.[189]

The Jews (or rather, the Zealots and their followers) could only muster untrained enthusiasts: men armed with spears and bows. Gallus soon reached Jerusalem, but failed to take the Temple Mount by storm; he then felt threat-

ned and was maneuvered into, or chose, retreat. He was neither a coward nor a fool (Josephus, *The Jewish War*, 11.19.5, 7), so it may be conjectured that because the legionary troops had proved unsteady, the auxiliaries were affected, and the irregulars melted away. Gallus's army suffered heavy losses as it withdrew, and the XII Fulminata lost its eagle standard, according to Suetonius (*Vespasianus*, 4): "*praedictum Iudaei ad se trahentes, rebellarunt, caesoque praeposito legatum insuper Syriae consularem suppetias ferentem, rapta aquila, fugaverunt*"—an ignominy sufficiently rare to warrant disbandment in most cases. It appears that the imperial forces only made good their escape by abandoning their personal baggage, artillery, and siege engines, and they suffered 5,780 killed or missing (not counting client-state troops lost), according to Josephus (*The Jewish War*, 11.19.7). This shocking defeat of Gallus—and by mere enthusiasts too—turned the uprising into a much more serious affair. Eventually it took a full-scale war to defeat the Jews, a war fought with an army that included two legions brought from Europe and fit for serious warfare, unlike their Syrian counterparts.

The circumstances that undermined the strength of the Syrian legions had been peculiar to the East during the Julio-Claudian era: a pattern of local recruitment from a population not especially warlike, excessively infrequent combat, and prolonged stationing in city barracks rather than rural camps, a practice always frowned upon.[190] One critic of my overall thesis of strategic rationality,[191] and of my depiction of the three systems (as systems to boot), deduced from the same scant evidence that the legions were primarily deployed to suppress lower-intensity civil unrest rather than to defend the empire, part of his larger denial that there was any imperial strategy, rather than just day-to-day policing (which can be "mindless," unlike the scholars who so comment on empire builders).

But such circumstances were no longer found only in the excessively civilized East in the post-Flavian era. They were found to an increasing extent throughout the empire, with the proviso that in colder areas, where warfare was rare in winter, the legions had always been stationed in cities in the winter months.[192] The danger was obvious: all the legions might deteriorate as the Syrian legions had. Large-scale offensive warfare would everywhere cease once scientific frontiers were attained, and local recruitment was rapidly becoming the norm. Meanwhile the supposedly bracing rural camps gave way to stone fortresses, which rapidly acquired an urban atmosphere, as victuallers,

laundrywomen, assorted tradesmen, and entertainers came to live around them.[193]

In the Julio-Claudian era there had already been town-like legionary camps offering many comforts, and war was scarcely a daily occupation. But because the troops were not in cities nor engaged in routine patrols and guard duties, and were instead engaged in their famously strenuous training and famously realistic unit exercises ("bloodless battles"), there had been no softening up of the Syrian sort, no loss of the combat edge. That, after all, is the universal experience of armies: their combat readiness is highly unstable; it is either increasing with hard training or decreasing with inaction. Guarding and patrolling was scarcely inaction, but it did not suffice to maintain combat readiness, because guarding is passive, and patrolling can be a mere stroll if the absence of bracing incidents is too prolonged. It is against this background, as well as that of the civil war, that the army policies of Vespasian and his successors must be seen.

First, in the wake of Civilis's revolt, Vespasian restored order to the legionary forces: four legions (I Germanica, IV Macedonica, XV Primigenia, and XVI Gallica) were disbanded for having surrendered or lost their eagles. At the same time, two legions manned by transferred sailors from the fleets (I and II Adiutrix) and a legion raised by the short-lived emperor Galba (VII Gemina ex Galbiana) were placed on the regular establishment, together with two newly created legions (IV Flavia Felix and XVI Flavia Firma).[194] Vespasian's accession had divulged a secret of the empire: troops could make an emperor, even if far from Rome, so the problem of political security was added to the eternal problem of maintaining ordinary discipline.

Both the successes and the shortcomings of Flavian army policy in the wake of the civil war are illustrated by the attempted putsch of L. Antonius Saturninus, legate of Upper Germany, against Domitian in 88–89 (Suetonius, *Domitianus*, 6, 7).[195] While Saturninus was able to persuade the two legions under his command (XIV Gemina and XXI Rapax) to support his cause by appropriating the treasure chests of their savings bank, the legate and army of Lower Germany remained loyal to Domitian, and the putsch collapsed. This episode incidentally showed that diplomatic penetration could be a two-way street: Saturninus had apparently purchased the support of the German Chatti from across the Rhine. But the Rhine thawed prematurely, the Chatti could not cross over the ice, and this attempt to use a client relationship for private aims failed.

When the reformed legions were reestablished on the Rhine in the wake of the civil war, their fairly rudimentary earth and wood *hiberna* winter camps gave way to bases built of stone; subsequently, permanent bases were built for the legions in Britain and throughout the empire.[196] This is perhaps the clearest expression of the gradual emergence of the new strategy: having attained scientific frontiers, no further movement was expected—not, at any rate, beyond the reach of fixed base points. Thus when the British frontier was advanced, first to Hadrian's line and then to the still more northerly Clyde–Forth line, the legions remained at York and Chester, deeper in the rear. Legions also remained in Strasbourg, almost 87 miles behind the Antonine German limes at its nearest point, Welzheim.[197]

That the official ideology proclaimed in speeches and slogans remained as triumphalist and as expansionist as ever is scarcely surprising. There was a ready-made heroic phraseology for unending conquest without limits, and none for the prudent optimization of military resources to maximize provincial security, prosperity (and thus tax revenues), and empire-wide stability. It was a time to live well rather than risk it all for yet more territory.

Though attempts were made to prohibit unseemly entertainments for the troops,[198] the spacious and well-equipped legionary fortresses provided standards of comfort and hygiene that soldiers—or, for that matter, most civilians— were not to experience again until the nineteenth century, if then. Even in the torrid and bleak North African desert, the fortress of the legion III Augusta at Gemellae, built in 126–133, was provided with baths fully equipped in the Roman manner, built on an area of more than 6,700 square feet.[199] Elaborate procedures supplied the baths with fuel in the desert—tamarisk trees—and abundant water.

Integral to the design of legionary fortresses and auxiliary forts was a hospital. An exemplary one, but very likely a standard design, had five-cot rooms for bedridden patients and separate lavatories for each pair of rooms, apparently to contain infections (even though standard medical practice would not recognize the phenomenon until the nineteenth century).[200] The legions and some auxiliary units had doctors (*medici*) on the regular establishment, as well as orderlies and surgeons (*medici chirugi*).[201] The narrative sources suggest that the military doctors were highly regarded in the medical profession. The authorities certainly had to make special efforts to ensure the health of troops in fixed bases; the liberties that men can take in the field, so long as they change campsites frequently, would have resulted in chronic illnesses in permanent sites.

More subtle measures were needed to cope with the more serious problem of preserving the fighting skills and élan of troops who faced the prospect of a lifetime in the army without ever seeing action. After all, from the conclusion of Trajan's Parthian War in 117 to the wars of Marcus Aurelius in the 160s, there was almost half a century of tranquility, with only sporadic and localized warfare in the remote northern frontiers of Britain and in Mauretania in 141 152. The answer was an increased emphasis on troop selection (already rigorous though it was),[202] on training (of which the same could be said),[203] and on professional specialization, which is a highly effective way to cultivate expertise if done with serious intent. More than 154 different functional posts have been counted in the second-century legionary establishment, excluding the junior centurions in the centuries.[204] Epigraphic evidence of unique value gives us a glimpse of army exercises under Hadrian. Although this was an official speech, the professionalism evident in Hadrian's remarks to the troops in Africa gives authenticity to the evidence.[205]

Only constant training could preserve the combat capabilities of an army that had settled down to an indefinite term of peacetime soldiering. Moreover, as the savage mutinies of the year 14 had shown, and as the sack of Cremona during the civil war was to show again, the concentration of large numbers of men into legions fully conscious of their inherent power as the empire's major fighting force entailed grave risks for civil society. It is not surprising, therefore, that the major emphasis in Roman army policy was not innovation but rather the maintenance of discipline. Even Hadrian, a man of broad conceptions and great expertise in military matters, was no innovator.[206] Instead, it seems that his major concern was the restoration of routine and discipline in the wake of the disruptions caused by Trajan's wars. Under Hadrian the legions were deployed at fixed bases which, in most cases, they were never to leave again; and soldiers soon acquired unofficial families in the settlements (*vici*) that grew spontaneously around the legionary bases. It is sometimes simply assumed—and asserted—that this domestication diminished the army's combat capabilities by infecting its fighting spirit with familial prudence.[207]

Had the Roman army built its combat capabilities on the basis of the raw courage of its troops, that observation would have plausibility at least. But there is ample evidence that a very definite preference for methodical and cautious warfare had been the hallmark of the Roman army long before Hadrian.

According to Frontinus (*Strategemata*, 4.7.4), Scipio Africanus once replied to a critic of his prudence by saying that his mother had given birth to a general, not a warrior: "*imperatorem me mater, non bellatorem, peperit.*" So, also, were the armies of Hadrian and his successors. As in the past, the Roman army would fight and win by relying on sound tactics, strategic methods, and superior logistics. It did not need to emulate the savage spirit of barbarian warriors in order to prevail. These were soldiers who received regular pay (increased to 300 *denarii* by Domitian),[208] retirement benefits, and occasional donatives in lieu of the uncertain prospect of booty, and they could be kept in fighting trim by administrative means: regulation, inspection, and the detailed execution of prescribed exercises.

In the course of the second century there were only minor changes in the equipment of the legions: a tendency toward heavier and shorter throwing spears (the characteristic Roman *pila*); the replacement of the shorter *gladius*, once the legionary weapon par excellence, with the longer *spatha*, which had always been issued to auxiliaries (it was not especially Germanic but rather Greek: σπάθη *spáthē*); and the replacement of the classic heavy and semi-cylindrical shields with smaller and flatter shields. These changes clearly indicate a shift in priorities from equipment optimized for battles of attrition to equipment more suited for fluid operations against bands rather than armies. No hint of decadence can be derived from these changes.

There was also a major innovation: the introduction as standard issue of the *carroballista*, a powerful arrow- or bolt-shooting machine as mobile as any cart.[209] Already present in Trajan's army and shown on Trajan's column,[210] the *carroballista* appears to have become the most important type of artillery in the legionary establishment, used alongside a small number of heavier and alto-gether less mobile stone-throwing machines. The introduction of the *carrobal-lista* must have increased even further the Roman advantage in the high-intensity warfare at which the legions were already so adept.

But the maintenance of frontier security against low-intensity threats, the major business of the Roman army during much of the second century, called for lighter forces trained and equipped for guard, patrol, and escort duties as well as highly mobile but small-scale warfare. It is not surprising, therefore, that the proportion of auxiliary troops in the army seems to have increased during the second century.[211] There was, moreover, a trend toward increased diversification in both the structure and function of the *auxilia*. For example,

milliary *alae* and cohorts were either introduced or greatly increased in numbers during the post-Flavian period: the first authenticated appearance of a milliary *ala* occurred in 85 CE.[212] The new formations were clearly useful in bridging the gap between the legions and the quingenary *auxilia*, less than a tenth as large in manpower: given the inevitable friction that the brigading of different units would cause, the milliary units should have resulted in a sounder overall force structure.

It is possible that there was also an innovation in the opposite direction: the introduction of a new kind of smaller unit, the *numeri*, commonly associated with Hadrian but possibly older. The *numeri* are poorly documented as compared to the auxiliary *alae* and cohorts; indeed they have to be discerned from the nature of their unit names: an ethnic designation followed in most cases by a functional one.[213] It is possible that the *numeri* did not exist in any stable form,[214] and there is no evidence at all for the oft-repeated speculation that they were smaller units than the quingenary *auxilia*, let alone that they had an establishment of 300 men. All one can opine is that if they were indeed newly raised ethnic units, they would have retained a more pronounced national character, which most of the *auxilia* had lost long before.[215] The one detail that comes from a credible source (Arrian, *Tactica*, 44) is that they were allowed to retain their native war cries, leading to the further speculation that the *numeri* were introduced to replenish the fighting spirit of the now-staid auxilia.[216] That they were also cheap, because their men came from barbarian poverty and could be paid less, is plausible but undocumented.[217]

Finally, the *numeri* were supposedly different in a more fundamental way because their manpower was self-renewing instead of being self-extinguishing: since the time of Claudius, troops of the *auxilia* were given citizenship upon discharge; hence their sons could aspire to legionary careers.[218] Under Antoninus Pius, however, sons born to auxiliaries prior to the grant of citizenship no longer received it with their fathers, and thus had to serve in the *auxilia* themselves in order to qualify.[219] But those who served in the *numeri* did not become citizens, and their sons were thus available for service in the auxiliaries.[220] This was important: while recruitment was a chronic problem for all Roman forces, it must have been less intractable for the better-paid and more prestigious legions.

If indeed smaller, the *numeri* were better suited for the fragmented deployments required on the "closed" frontiers—as in Germany, where the western Taunus and Odenwald segments of the Hadrianic frontier were guarded by

many small forts manned by *numeri.*[221] It is also possible that the troops that manned the milecastles of Hadrian's Wall in Britain belonged to *numeri*. In both cases, the undesirable alternative to the use of *numeri* would have been to split *alae* or cohorts into many small subunits. The *numeri* thus contributed to the functional diversification of the Roman army; they cannot simply be written off as "low-category" troops.

The first requirement of tactical diversification was to provide more cavalry, more light infantry (spearmen especially), and more bowmen and slingers to balance the heavy legionary infantry. Irregular North African horsemen (*Mauri gentiles*) were prominent among the troops who fought in Trajan's wars, and so were oriental archers armed with powerful tendon-and-horn compound bows; both kinds of troops were considered irregulars (*symmachiarii*) at the time, and would appear as *numeri* later.[222]

While it seems improbable that the Romans looked to the *numeri* to infuse the troops with barbarian energy, mounted archery was very much an eastern specialty, and it was natural to find *numeri* of mounted archers from Palmyra and Sura side by side with regular auxiliaries, such as spearmen of Ituraea. Mounted missile troops were obviously suitable as border forces, since they could best deal with elusive infiltrators and with skirmishers; it is not surprising that they were prominent in the garrison of the Dacian Limes Porolissensis on the Carpathians, which had no continuous wall barrier.[223]

Outside the *numeri* there was some specialization of a more recondite sort: under Trajan, for example, both a milliary *ala* of lancers, Ala I Ulpia Contariorum, and one of dromedary troops, Ala I Ulpia Dromadariorum, were used.[224] The first may have been something of an experimental unit of heavy shock cavalry; the second was obviously a case of terrain specialization. Clearly, because the Roman army was no longer an undifferentiated force apt to fight anywhere, regional patterns of deployment had become useful: dromedary troops for the desert; mounted archers for "open" frontiers, such as those of Dacia and above all the Euphrates; light spearmen (Raeti Gaesati?) for mountain country; and so on.

Most frontiers required a combination of static troops, to man forts, watch-towers, and guardposts, and mobile troops, that is, cavalrymen for patrol and escort duties. At the provincial level, the force mix could easily be obtained by combining cavalry *alae* with auxiliary, or even legionary, infantry; but at the strictly local level, the frictions of brigading different units (cap-badge bar fights have long enlivened British army life) could be avoided by the deployment of

the *cohortes equitatae*. The latter appear to have had 120 cavalry to 480 infantry if quingenary, and 240 cavalry to 800 infantry if milliary.[225] Sometimes dismissed as low-grade mounted infantry, the traditional bane of true cavalrymen,[226] it seems that the *cohortes equitatae* were, on the contrary, organic combinations of normal infantry with light cavalry, that is, cavalry that relies on harassment (as opposed to shock) tactics. In the event of large-scale warfare, the cavalry and infantry would fight with their respective branches, and not in combination.[227]

It has been argued that the horsemen of the *cohortes equitatae* were "true" cavalry and not mounted infantry, and certainly not low-grade mounted troops. But that conflates light cavalry, suitable for scouting, screening patrols, and so on, and the heavy cavalry trained and equipped for high-intensity warfare—that is, to charge en masse against enemy concentrations mounted or on foot. The cavalry of the *alae* was in fact dual purpose, trained to fight both with missile *and* shock weapons (the lance, *contus*); but the cavalry of the *cohortes equitatae* was only mounted and equipped for close contact and missile attack. As such it was a limited-purpose light cavalry. It is likely that the cavalry-infantry mix of the *cohortes equitatae* could be employed for normal frontier security duties, with its infantrymen holding fixed observation points while its cavalry patrols covered the intervening zones.

The territorialization of the legions, arising from their deployment in permanent bases, raises the basic question of flexibility for large-scale warfare. If the legions could no longer leave their bases to campaign outside their territory, where did the troops of expeditionary forces come from?

At a middle level of combat intensity, an expeditionary corps could be formed out of *auxilia* units alone, as in the operations in Mauretania under Antoninus Pius in the mid-second century, when the only legion in Africa (III Augusta) was reinforced by auxiliary cavalry forces sent into the coastal staging bases of Portus Magnus, Cartennae, and Tipasa.[228] (In Tipasa, a circuit of walls 2,400 meters long has been excavated. This would have provided a secure base for forces shipped in from Europe: the Ala Flavia Brittanica, a milliary cavalry unit; the Ala I Ituraeorum Sagittariorum, a unit of mounted archers, Ala I Ulpia Contariorum, lancers and heavy cavalry; and the Ala I Cananefatium.[229] Men and horses would have to be rested and acclimatized prior to engaging in serious warfare, and the provision of a secure base at the landing zone was obviously a sound move.

But the Roman army could not dispense with the heavy mass of legionary forces when it came to large-scale warfare. Three entire legions appear to have been sent to the East for the Parthian War of Marcus Aurelius: I Minervia from Bonna (Bonn) in Lower Germany; the II Adiutrix from Aquincum (Budapest) in Pannonia; and the V Macedonica from Troesmis (near Galați) in lower Moesia.[230]

Much more frequent was the deploymemt of *vexillationes*, detachments drawn from the legions, ranging in size from a handful of men under the command of a centurion to the large formations commanded by legionary legates.[231] Long an established practice, the use of *vexillationes* increased considerably in the post-Trajanic era. The legions as a whole developed local attachments and could not be easily moved—for soldiers were not likely to countenance indefinite separation from their (as yet unofficial) families. It was still feasible, however, to find 1,000–2,000 troops in each legion freely available for large-scale warfare far from their bases. But there was a much stronger disincentive and a much stronger reason for not redeploying entire legions than the reluctance of the troops to leave their homes. With frontier security now reliant on the stationing of forces in situ and the security apparatus they supported with patrols and such (rather than on others' perceptions of their remote power), the removal of legions was liable to cause an immediate breakdown in the diplomatic structure of transborder control at the local level, which happened when Lucius Verus's Parthian campaigns took away legions from the Rhine and Danube, triggering a revolt by the Marcomanni.[232]

Such outbreaks in turn could precipitate other attacks against imperial lands. It is true that on a day-to-day basis, peoples across the borders dealt mostly with the auxiliary forces in their perimeter forts, but the integrity of imperial territory was ultimately secured by the deterrent suasion emanating from the concentrated power of the legions. Their removal was bound to upset the local balance of power and weaken or even neutralize deterrence, leaving only the actual war-fighting capabilities of the forces left in place. If they had to be used and consumed in combat, security had to be bought at full price, instead of coming cheaply from deterrence alone.

When three entire legions (as well as several *vexillationes*) were sent to fight against Parthia under Marcus Aurelius, the governors of the affected provinces were told to compensate for their transfer by "diplomacy."[233] Not surprisingly, without a deterrent the structure of diplomatic control broke down, precipitating

the northern wars of Marcus Aurelius immediately after the victorious con-
clusion of the Parthian War. During the winter of 166–167 CE the northern
frontiers were defended by mobile *vexillationes* in anticipation of the return of
the forces previously sent to the East. But major penetrations nevertheless
took place.[234]

The deployment of *vexillationes* on a strategic scale was more effective, as
had already been shown in 83–85 under Domitian, when C. Velius Rufus in
Germany had a force drawn from nine separate legions under his command.[235]
The support elements and headquarters of the legions could then be left in
place, together with older, married soldiers. These were precisely the troops
that were less likely to be useful on remote fronts and more likely to do their
very best on the defensive, and for the same reason: the frontier had become
their home and it was where their families were.

Centurions expert in dealing with the locals across the border would also
remain in place, and so would the psychological presence of the legion as a
deterrent, which would most likely diminish less than proportionally with the
departure of *vexillationes* of moderate size. Further, with the development of
the empire's civil and military infrastructures of roads and supply depots, the
support and logistic elements of the legions had become redundant for expedi-
tionary purposes: local support elements and base infrastructures already in
the combat zone could no doubt be stretched to accommodate *vexillationes*
consisting only of legionary combat echelons, that is, the cohorts. This would
also alleviate the transportation problem.

Finally, there was the element of troop selection. Unless extruded by their
home units, rather than picked by detachment commanders, the men of the
vexillationes were liable to be younger and fitter than the average legionary.
They were also likely to be unattached—as suitable for mobile and offensive
warfare as the older family men left behind would be resilient on the defensive.

Conclusion

It cannot be pretended that expeditionary units extracted from an army which
was everywhere deployed in static frontier positions could have as much of a
combat edge as the strategically mobile armies of the early principate. A strat
egy optimized for preclusive defense—even though by no means a cordon
defense—could not enjoy the very high ratio of net disposable military power
of the earlier system of hegemonic control and mobile armies. While under
Nero three legions could be deployed to Judea in 66 with no apparent strain on

the system, Trajan's army was obviously stretched nearly to the breaking point by 116, and that of Marcus Aurelius even more so by 166.

Ultimately, the decreased elasticity of the system had to be compensated for by the recruitment of two new legions (II and III Italica).[236] The margin upon which the safety of the system depended had become dangerously thin.

Defense-in-Depth

The Great Crisis of the Third Century
and the New Strategies

The outstanding virtue of the principate, the constitutional device invented by Augus-
tus, was its reconciliation of republican forms and traditions with autocratic efficiency.
Its outstanding defect was that the succession was dynastic, but without any mechanism
to secure it as such, or to replace an unfit dynast. When a tolerable emperor chose a
capable successor and made him a son by adoption, all was well. Adoption satisfied the
dynastic sentiments of the army and the common people without offending the anti-
dynastic prejudice of the Senate. But if there were no adequate son and none were
adopted, he became emperor who could make himself emperor, usually by force.

During the fortunate second century, Trajan (r. 98–117) was adopted by Nerva
and himself adopted Hadrian, who lived till the year 138. Hadrian, in turn, adopted
Antoninus Pius (r. 138–61), who adopted two sons: Lucius Verus, who died in 169, and
Marcus Aurelius, who ruled the empire until 180. Then the chain of successful adoptions
was fatally broken.

Marcus Aurelius did not adopt a son, for one was born to him, Commodus, wholly
unfit for the office he inherited. Commodus was murdered in 192. Three months later,
his successor by proclamation, the elderly Pertinax, was murdered also. The Praetorian
Guards, as the strongest military force actually in Rome, was the immediate arbiter of
the succession, and they chose to sell the office. The buyer, Didius Julianus, did not last
the year. Septimius Severus, legate of Pannonia, brought the superior force of the Danube
frontier legions to bear by marching on Rome and claimed the throne. But if one legate
could make himself emperor, so might another. For five years Severus had to fight de-
structive internal wars: other legates with other legions contested the office, just as
Severus himself had done.

Having defeated his rivals, Severus engaged in successful external war until his
death on campaign at York in 211. His two natural sons, Caracalla and Geta, then
jointly inherited the imperial power, as Commodus had done and with equal merit.
Having murdered his brother in 212, Caracalla was murdered in 217. Succession by
murder and civil war now became the norm.

Between the natural death of Septimius Severus in 211 and the accession of Diocletian in 284, there were 24 more or less legitimate emperors and many more usurpers, that is, rulers who could not control Rome. Most reigns were short-lived, but some usurpers ruled substantial parts of the empire for several years. In fact, the longest reign of the period was that of a usurper, Postumus, who controlled Gaul for nine years. The average reign of the "legitimate" emperors was only three years. One emperor, Decius (r. 249–251), died in battle fighting the Goths; another, Valerian (r. 253–260), was captured by the Persians and died in captivity; Claudius II (r. 268–270) died of the plague. All the other emperors and most usurpers were murdered or they perished in civil war.

Sanguinary turmoil at the very core of the imperial system was bound to invite aggression from without. But there is also reason to believe that the magnitude of the external threat had increased independently. On the Rhine and upper Danube, the old and fragmented neighbors of the empire had begun federating into much larger and more dangerous agglomerations during the second century, even before Rome's domestic upheavals began. Instead of the many peoples recorded in the first and second centuries—Frisii, Bructeri, Tencteri, Usipi, Chatti, Hermunduri, and so on—the empire now confronted the larger federations of the Franks and the Alamanni, who could concentrate much more manpower in attacking the frontiers. Having for so long confronted a single adversary whose culture had infiltrated all their separate lives, different barbarian groups found a common basis for action against the empire. It became much harder for Roman diplomacy to contrive divisions among men who now had much in common.

In the East, the weak Arsacid regime of Parthia was overthrown circa 224 by the Persian dynasty of the Sassanids, and the new enemy immediately proved to be altogether more formidable than the old. For the empire this change had catastrophic consequences, for its entire strategy of containment was thereby unbalanced. Septimius Severus had fought Parthia more successfully than any Roman before him, and his success had been consolidated by the establishment of a "scientific" frontier in northern Mesopotamia, on the Khabur River–Jebel Sinjar line. But this did not suffice to contain the Persian attack of a generation later.

Domestic strife and foreign aggression were not merely parallel; they interacted adversely with one another. It was fortunate for Rome that the territorialization of the army (which most modern historians like to deplore) was already far advanced: it must have acted as a brake on eager pretenders, for soldiers were less likely to be enticed into leaving the frontiers to fight internal wars if their own families and their own lands would thereby be exposed to foreign invaders. Nevertheless, troops were all too

*frequently removed from frontiers already under attack to fight in private wars be-
tween emperors and usurpers. There was also a more subtle connection between exter-
nal attack and domestic instability: regional usurpations were in part a reaction to the
failure of the central government to provide security for the border regions.*

*This interaction between internal disorder and foreign invasion had disastrous
results: the history of the third century is largely a history of invasions, many made
possible by domestic strife, and some so deep that Rome itself had to be provided with
walls. Much that had been built and achieved since Augustus was irreparably destroyed.
Destroyed as well was an entire conception of empire.*

*Much of the time, the emperor of the hour had to devote his attention to the threat
from within even when attacks were under way from without: it was more important
to protect the office than to ensure the tranquility of remote frontiers. Sometimes
external security was sacrificed directly for internal: Philip the Arab (r. 244–249) aban-
doned the Persian campaign of his predecessor and victim, Gordian III (r. 238–244),
and sought a prompt and unfavorable peace treaty in order to return to Rome to claim
the imperial power before another could do so in his place.*

*That the ideal of a unitary empire was still dominant, that a form of cultural pa-
triotism had become prevalent, and that an anxious longing for order remained uni-
versal, are all proven by the rapid success of Diocletian's efforts to restore the political
stability and territorial security of the empire. Diocletian (r. 284–305) rose from
peasant to emperor through the ranks of the army, but he was neither a peasant nor a
simple-minded soldier by the time he attained the purple. Schooled in the chaos and
insecurity of half a century, Diocletian relentlessly pursued a policy of internal regi-
mentation and systematic frontier consolidation—the one exemplified by his celebrated
edict on prices, the other by stout forts built all around the imperial perimeter.*

*Although he was the beneficiary of a wholly unregulated system of succession, Dio-
cletian invented, or at least applied, a scheme of great constitutional ingenuity that
was to abolish the danger of civil war. The tetrarchy, the joint rule of four, was to
produce future rulers for the empire with the assured regularity of a machine. There
were to be two equal co-emperors, an Augustus for the West and one for the East, and
in 286 Diocletian made Maximian the Augustus for the West, himself retaining the
East. Then came a refinement: each Augustus would have a junior emperor, with the
title of Caesar; in 293 Diocletian made Galerius his own Caesar and chose Constan-
tius I Chlorus to be Maximian's. Each Caesar would marry the daughter of his Au-
gustus, and eventually succeed him, then choosing a Caesar in turn as his own junior
associate. The four rulers, the tetrarchs, could campaign simultaneously in as many
sectors, and no vast areas of the empire would ever again be left unattended to breed*

...........rs. In 305 Diocletian (and Maximian, his fellow Augustus) abdicated, and he
...........d to a splendid palace in Dalmatia, the only emperor ever to retire voluntarily.
By 309 the machine of the tetrarchy had already broken down. No predictable and
automatic succession ensued, for six Augusti disputed the title. Nevertheless, the insti-
tution of dual control endured until the very end of the western empire, and the chaotic
succession struggles of the third century did not recur.

A magnificent palace falling into ruin, the empire was restored under the tetrar-
chy, but it was restored as a solid and austere fortress. The agency of this transformation
was a perfected system of taxation in kind, which ruthlessly extracted the food, fodder,
clothing, arms, and money needed for imperial defense from an empire that had be-
come one vast logistic base. In the military realm, the reforms of the tetrarchy marked
a critical stage in the secular transformation of the assured territorial defense of the
second century into the defense-in-depth of the late declining empire. The age of the
tetrarchy was a time of grim and painful innovation, presided over by a man whose
qualities even the most hostile sources cannot fully obscure. In the stern rule of Diocle-
tian lay the key to a difficult salvation for the empire and its civilization, while in the
seemingly happier age of Constantine were the beginnings of the final disaster.

The System in Outline

Faced with an enemy sufficiently mobile and sufficiently strong to pierce a
defensive perimeter on any selected vector of penetration, the defense has, in
principle, two alternatives: the first, usually described as an "elastic defense,"
makes no attempt to defend the original frontal perimeter with its fortifica-
tions and associated infrastructures, if any. Instead, the defense relies exclusively
on mobile forces, which must be at least as mobile as those of the enemy. The
two sides then fight on an equal footing: the defense can be as concentrated as
the offense, because it need not assign troops to hold any fixed positions, nor
detach forces to protect towns, cities, or specific sectors. On the other hand,
the defense thereby sacrifices all the tactical advantages of being on the
defensive—except its presumably better knowledge of the terrain[1]—because
neither side can choose its ground, let alone fortify it in advance. As a strategy,
an elastic defense is normally a last resort, the result of being unable to defend
the perimeter as it was before. Indeed the very term is euphemistic: as one
scholar noted, a really elastic defense is virtually no defense at all.[2]

The second operational method is a defense-in-depth, based on some com-
bination of self-contained strongholds with mobile forces deployed between,
ahead, or behind them. Under this method, which has many variants both

ancient and modern, warfare is no longer a symmetrical contest between structurally similar forces. While the offense has the advantage of being able to concentrate its forces against any chosen sector of the entire front, thus maximizing its local superiority, the defense has the advantages of mutual support between its self-contained strongholds and of its mobile forces in the field. If the strongholds are sufficiently resilient to survive attack *without* requiring the direct support of the mobile elements, if the mobile elements in turn can resist or evade concentrated attacks in the field without needing the shelter of the strongholds, and finally, if the offense must defeat the strongholds one by one in order to prevail, then the conditions are present for a successful defense-in-depth, because the offense will eventually be faced by the superior strength of the fixed and mobile elements acting in combination. Before that, indeed all along, the strongholds can resupply the mobile forces and afford them temporary shelter if needed, while the mobile forces can gather to counterattack the enemy forces attempting to defeat any given stronghold.

The terms used above are modern, but defense-in-depth is a strategy with an ancient pedigree. Some reviewers of the first edition of this book did not seem to be aware of this; one even noted in alarmed tones that defense-in-depth was the "usual designation of current NATO doctrine" and that such a strategy "would make no sense without the possibility of rapid and massive reinforcement from overseas, and the threat of nuclear retaliation."[3] Of that there was little danger in the third century CE. In any case, fortresses, their garrisons, and cavalry forces formed defense-in-depth combinations long before then, though not on the strategic scale of the Romans.

Neither of the two methods available to cope with strategic penetrations that perimeter defenses can no longer reliably contain—that is, a defense-in-depth or an elastic defense—can offer the preclusive security of a perimeter defense, but both are more resilient. At the tactical level, the two methods lead to very different patterns of deployment. But at the strategic level, the qualitative difference between the two methods is less significant than the *scale* of their application, because both can be applied across all of the defended territory or just locally. As the scale of application increases, so does the short-term resilience of the system, but the depth of the territory that is fought over must increase also, with all the resulting costs to society.

Having acquired a comprehensive system of preclusive defense in the second century, and having enjoyed the security it provided for agriculture and for towns and cities right up to the frontier lines, and the resulting prosperity,

the Roman response to the first serious penetrations of the imperial perimeter, which took place under Marcus Aurelius (ca. 166), was naturally localized, incremental, and remedial rather than systemic. Instead of adopting either an elastic defense or a defense-in-depth, border fortifications were strengthened and garrisons were augmented on the most vulnerable tracts of the perimeter. In addition, two new legions, II Italica and III Italica, were raised and deployed in Noricum and Raetia, respectively, which till then were provinces ungarrisoned by legions.[4] The perimeter defense strategy was not abandoned even when the first nucleus of a central strategic reserve was formed a generation later, under Septimius Severus. Instead, further attempts were made to remedy local inadequacies in frontier defenses by constructing additional fortifications and augmenting garrisons.

It was only after the chaotic breakdown of imperial defenses in the great crisis of the mid-third century that a new strategy began to emerge, in a process that remained incremental, subtle in places, and unheralded in any case. (Not finding explicit documentation, and perhaps unaware of its absence in contemporary conditions also—for what is documented is not intended, and vice versa—one scholar simply denied that there was any change in strategy.)[5] When and where frontier defenses were totally overrun, remedial strategies could only take the form of an elastic defense, but to the extent that deliberate choices were still possible, the strategy that emerged had the character of a defense-in-depth based on a combination of static frontier forces and mobile field armies.

The adoption of a defense-in-depth strategy in the later third century was not, however, either total or definitive. *Indeed, whenever that strategy showed signs of enduring success, it was promptly abandoned.* In other words, when Roman armies did succeed in forcing the enemy to revert to the defensive, every attempt was made to restore the former perimeter of preclusive security in the sector in question. Or better yet, if Roman armies could induce rebellious neighbors to revert to client status, there was a prompt reversion to the hegemonic mode. That striving to progress from emergency responses to the reconstitution of stable frontier defenses was the essence of Diocletian's military policy at the end of the third century and that of the more fortunate of his successors until Valentinian I, under whom the last sustained attempt to assure a preclusive defense of the imperial territory was made.

This pattern of attempted reversions to earlier and better times on the Roman frontier was seemingly overlooked by some critics of the first edition's

description of defense in depth as a strategy.[6] They asserted that the Romans of the third and fourth centuries never adopted a purely defensive strategy, and never abandoned hegemonic ambitions or methods. Both things are indeed true, yet happier intervals of reversion were not more than that, and it was the principal strategy of defense-in-depth that ensured the empire's survival, even if its peripheries were afflicted by infiltrations and penetrations that could not be precluded and had to be intercepted and destroyed, or at least driven back to prevent further damage.

Long-term reliance on the defense-in-depth strategy entailed the maintenance of a stable equilibrium between the incursions of the enemy and the eventual imperial counteroffensives. Incursions would inevitably take place and, unless very feeble, could no longer be prevented by interception on the frontier line itself, for its garrisons were thinned out. Meeting only static guardposts and weak patrol forces on the frontier, the enemy could frequently cross the line virtually unopposed, but in the context of defense-in-depth, this no longer meant that the defense system had been pierced, "turned," or overrun. Instead, the enemy would find itself in a peripheral combat zone of varying depth, within which strongholds large and small as well as walled cities, fortified farmhouses, fortified granaries, and fortified refuges would remain, each capable of some sustained period of resistance, at least against enemies unequipped with siege machines. Within and beyond this zone, enemies would encounter the mobile forces of the defense, deployed to fight in the open but with the support of the fortified places, as with the cities on the Near Eastern frontier.

Such support could take several distinct forms.[7] First, as mentioned above, the fortified islands could serve as supply depots. Under the later empire, the most important remaining advantage of Roman forces over their enemies was their vast logistic superiority: Roman victories were frequently the outcome of fights between well-fed Roman troops and starving invaders who had failed to find undefended food stores in the areas they had overrun.[8] Tacitus (*Germania*, 33) remarked that the Chatti were exceptional among the Germans, and more dangerous, because they went to war supplied with provisions.

Food and fodder stores in fortified strongholds were at once denied to the enemy and readily available to the forces of the defense, when the latter advanced to recover territory temporarily overrun. The location of frontier-line food storehouses was ideal from a logistic point of view, because resupply was available where it was needed most, at the troops' destination. Cavalry troops with good horses in good health can move across country as fast as 50 miles

construct that imputes a false imperial defense strategic rationale for what were—according to them—nothing more than localized measures to repress subjected populations).

Road forts manned by small detachments could not effectively oppose the passage of large enemy forces, but they could at least intercept stray groups and foraging parties or impose time-consuming detours. And delay was the object, in anticipation of the relief columns that would be on their way to help sectors under attack. During the third-century invasions, prior to the construction of road forts, quite small barbarian bands had been able to penetrate rapidly into the interior, sometimes for hundreds of miles, using the highways built precisely to facilitate movements within the empire.

A fourth function of self-contained strongholds was only of importance when effective mobile troops remained in their garrisons. Such troops could sally out to attack an invading enemy on the flanks or from the rear, and then return to the safety of their walls once the enemy responded in strength. Such hit-and-run attacks not only would wear down enemy forces, but also would induce their leaders to keep their men together in larger-than-preferred force concentrations for safety's sake, instead of the dispersal that was better for looting and disruption. This benefit could be critical, because the principal tactical problem facing the mobile field forces of the Romans was coming to grips with elusive and dispersed invasion forces.

A fifth function of self-contained strongholds was to conserve the strength of mobile forces under stress by offering them temporary refuge. Under a pure elastic defense strategy, overwhelmed defensive forces faced a stark choice: escape or destruction. But with strongholds available, outnumbered or defeated contingents did not have to disperse in flight or face destruction, and could instead find shelter to rest, reconstitute, and prepare to return to the fight.

For the empire it was always essential to conserve the scarce supply of trained military manpower, and the strongholds did so doubly: by maximizing the defensive strength of garrisons within their walls and by offering temporary shelter for mobile forces that would otherwise have been destroyed or driven from the field. These strongholds did have a potential drawback: stout walls and high ramparts could eventually erode the offensive spirit of the troops they contained by increasing the difference between the dangers of open combat and the safety offered by the stronghold. But that universal and eternal problem had a universal and eternal solution in the constant tactical exercises of Roman units (not just parade ground drills), which are so well attested in

the sources, epigraphic as well as narrative. In sum, "Maginot Line syndromes" are avoidable: less trained troops that *do* succumb are even more likely to be driven from the field if they *lack* fortifications.

I have assumed throughout that fortified strongholds would *normally* be capable of sustained resistance against direct attack, given proper manning and provisioning. This was not the case with the Roman forts of the first and second centuries, however. The legionary "fortresses" and auxiliary "forts" were then no more than residential complexes, with none of the features of fortified strongholds. They had stone walls, but they were there to separate physically and psychologically the military installations from the often untidy civilian life that grew around them with its huts, booths, and market stands; to convey a reassuring message of enduring solidity; and to keep out petty thieves. They were not real fortifications.[12] This was entirely consistent with their operational role, which was to serve as bases for tactically *offensive* operations, albeit within the framework of a strategy of territorial defense.

With their spacious grounds protected only by thin, low walls, and their narrow perimeter ditches designed to do no more than keep out infiltrators (or at most to break the impetus of a sudden onslaught), these fortresses and forts were incapable of withstanding determined attacks. Even the most primitive enemies could contrive simple battering rams to breach thin walls.[13] The legionary fortress of Eburacum (York), for example, built circa 107–108 CE under Trajan and rebuilt under Septimius Severus, had walls only 18 feet high and only some 3 feet wide.[14] The walls of later, post–third century fortifications by contrast, were generally 10 feet thick.[15]

Nor were the troop bases on the frontiers well situated for tactical defense; they were not on high ground to better hold out against the enemy but instead set astride lines of communications, for logistic and residential convenience. Moreover, wall circuits were long in proportion to garrison strengths, because of spacious internal layouts and the preferred perimeter shapes (typically rectangles, instead of minimum-perimeter circular or oval circuits).[16] Further, the walls commonly lacked topside fighting positions, ramparts, and projecting towers, from which intervening wall segments could be kept under enfilading fire. And if there were towers, they were commonly decorative, that is nonprojecting, as in the Trajanic fortress at Eburacum, where towers 30 square feet at the base projected only 2 feet from the circuit.[17]

Finally, the wall circuits of first- and second-century bases lacked wide berms and ditches (to keep siege machines at a distance), solid subfloors (to defeat

mining attempts), defensible gates, and sally ports. All of these devices became common in Roman fortifications from the third century onward, usually integrated in set designs that would remain models of military architecture for half a millennium and more.

It is sometimes suggested that this transformation of Roman military construction was prompted by a hypothesized (and sudden) improvement in the siege technology of the Goths, which came about because of the capture of Greek cities in Greece and Asia Minor. But those cities had been at peace for centuries, and there is no reason to believe that they contained siege equipment or men trained in siege warfare.[18] Technology is not an independent variable but rather a reflection of the cultural and economic base of a society—and barbarian society had not changed significantly. It is true that there are references to the use of "engines" by the Goths at the third siege of Philippopolis (in Macedonia) in 267 and at the siege of Side (in Lycia) in 269, but it is unlikely that those machines were anything more elaborate than simple battering rams or scaling towers.[19] In fact, the evidence indicates that the improvement in barbarian siege technology between the first century and the sixth was marginal.[20] (Sassanid-Persian siege technology was much more advanced.)

While technical (new machines) or tactical explanations for the revolution in Roman military architecture are implausible, there is a straightforward strategic explanation, inherent in any strategy of defense-in-depth. Roman bases were rebuilt as fortified strongholds not because the barbarians had learned how to breach simple walls—which they must always have been capable of doing—but because the enemy had *not* acquired significant siege capabilities. Unless the strongholds could resist close investment and sieges, the defense-in-depth would quickly collapse into an elastic defense of the worst kind. On the other hand, facing barbarians unequipped to breach serious defenses adequately manned, and incapable of starving out the well-fed defenders, the strongholds could resist while relief was on the way, while performing their several supporting functions.[21]

The general character of any defense-in-depth strategy is rearward defense, as opposed to the forward defense of the earlier Roman strategy. Any concept of defense requires the enemy to be intercepted, but while forward defense demands that he be intercepted *in advance* of the frontier so that peaceful life can continue unmolested behind it, rearward defense can only provide for his eventual interception inside imperial territory, his ravages being meanwhile contained only by the point defenses of forts, towns, cities, and even individual

watchhouses. The earlier system of preclusive security had been obviously superior in its benefits to society, but it was impossibly costly to maintain against enemies that had become capable of concentrating overwhelming forces on any narrow segment of the frontier.

In perfect accordance with the paradoxical logic of strategy, it was the very success of the earlier strategy in keeping out the barbarians over long stretches of frontier that had stabilized neighboring clans and tribes, inducing them to combine in ever-stronger gatherings, which long and thin perimeter defenses could no longer keep out. Moreover, the system had not been resilient, because there was nothing behind the linear defense of the frontier. A defense-in-depth, in contrast, could survive even serious and prolonged penetrations without collapsing. And this resilience added to the flexibility of imperial strategy as a whole: in the presence of multiple threats on different sectors, field armies could be redeployed from one to the next to fight different enemies seriatim, for no irreparable damage would be suffered in the meantime.

But the new strategy offered much more security via resilience for the central authorities of the empire, rather than for the provincial elites that were faced with incursions and penetrations—and this disparity would eventually have grave political consequences. The nexus between the multiple invasions of the third century and the succession of would-be usurpers in Britain, Gaul, Egypt, and North Africa was quite direct. Provincial security had been sacrificed to better assure the survival of the empire as a whole, and the provincials could be excused for their failure to applaud the sound logic of the new system.

The equilibrium of a successful defense-in-depth strategy could not last long. There was a built-in tendency for a successful defense-in-depth to give way to a temporary restoration of the earlier strategy of forward defense. And if the strategy proved unsuccessful, it would degenerate into an elastic defense. The goal of a successful defense-in-depth, ensuring the *ultimate* possession of imperial territory, was upgraded to the Antonine goal of preclusive protection for *all* imperial territory against threats at *all* levels of intensity. The goal of an unsuccessful defense-in-depth was of necessity downgraded to the minimum of ensuring the survival of the mobile forces in the field, which were frequently headed by the emperor himself. Sometimes, for all the tactical flexibility of an elastic defense (in which safety could always be sought in retreat), imperial armies could not even ensure that minimum goal: thus we find the emperor Decius killed by the Goths in 251 while campaigning in the modern Dobruja; Valerian captured in 260 by the Sassanid ruler of Persia, Shapur I, before the

walls of Edessa; and, in the gravest defeat of all, Valens killed with the defeat of his field army by the Visigoths at Adrianople in the great disaster of 378.

Even when there was neither a complete reversion to a preclusive defense nor a decline into a deep elastic defense, the dynamics of the strategy were inherently unstable, primarily because the defended area that became a com bat zone was simultaneously part of the empire-wide logistic base. The Romans did not face a single enemy, or even a fixed group of enemies, whose ultimate defeat would ensure permanent security. Regardless of the magnitude of Roman victories, the frontiers of the empire would always remain under attack, because they lay in the path of secular migration flows from north to south and from east to west. Hence Roman strategy could not usefully aim for total victory at any cost, for the threat was not temporary, but endless. The only feasible and rational goal at any point in time was the maintenance of a minimally adequate level of security at the lowest cost to society.

Under a successful strategy of preclusive defense, the total expense of imperial security consisted of money spent on troop maintenance and the hidden costs of compulsory purchase and compulsory service. A defense-in-depth strategy, on the other hand, inflicted additional costs on society, which were paid by the population directly and not through the medium of the tax collector or recruiting sergeant—that is, the losses inflicted by enemy incursions. In the short run, those societal costs had no direct impact on the army, which would be fighting with men already in the ranks, fed by food already harvested. In the long run, on the other hand, the level of damage (or, more precisely, the level of the damage that was cumulative rather than just temporary) would determine popular and elite attitudes toward the very idea of a unitary empire, it would decisively affect the morale of autochthonous troops, and it would ultimately determine the value of the imperial structure to its inhabitants. (And of course the degree to which the costs of enemy incursions and invasions were cumulative rather than just temporary also depended— perhaps greatly—on the quality of governance in each place, in each time period.) In the medium term, say the span of two or three years, the longest likely to be relevant to the imperial leadership, there was a direct relationship between the logistic support available to the army (and therefore its capabili- ties) and the geographic depth of the defense-in-depth combat zones.

If the peripheral zone that became a war zone in a sequence of enemy incur- sions and successful counteroffensives was kept thin, the damage inflicted to the army's logistic base would be correspondingly limited. But this zone could

only remain thin if the reaction of the defenders was prompt, and speed in reaction conflicted with the need for time in which to assemble the strongest possible force for the counteroffensive. Conversely, the greater the degree of troop concentration—other things being equal—the longer the time needed to deploy forces prior to interception, and the deeper the enemy penetration. There was, in other words, a proportional relationship between the resilience of the system and the degree of damage sustained by the empire's logistic base before the enemy was repelled. It was this conflict of priorities between the societal and logistic costs of delayed interception, on the one hand, and the combat advantage of the greatest feasible preliminary concentration of forces, on the other, that generated the cyclical nature of imperial strategy.

If successful in the first instance in reacting to attacks, imperial armies would suppress major threats and then go on to defeat successive incursions with shorter and shorter interception delays. At each stage, the damage done to the logistic base by each incursion would be less and less, and the imperial armies supported by the affected areas would be gradually strengthened. This in turn would tend to ensure, other things being equal, that the interception delays would be shorter still—and so on, in a virtuous circle.

On the other hand, if the imperial armies were *not* successful in the first instance, incursions would become deeper and deeper, the damage done to the logistic base would be greater and greater, and the imperial forces supported by the sector in question would be correspondingly weakened. The mobile forces gathered to drive out the enemy would then have to come from farther and farther afield, thus delaying interception to a greater and greater extent, correspondingly increasing the damage inflicted on the logistic base—and so on, in a vicious circle.

Able leaders and good fortune in battle could and did reverse the downward cycle of a deteriorating defense-in-depth time and again. In the West there were several major reversals of fortune to good effect from the third century to the late fourth century, each time culminating in a temporary return to a preclusive border defense. In the eastern half of the empire, even the great crisis of the fifth century precipitated by the extraordinary threat of Attila's Huns was successfully overcome,[22] as were many crises thereafter. But the downward cycle that began in the West after the reign of Valentinian (364–375) was only partially and briefly reversed thereafter. Following the death of Theodosius I (in 395), the cycle became irreversible. Much of the western empire then became the scene of combat between barbarian armies that ravaged the

FORMER LIMES OVERRUN
(FORTS ABANDONED)

DIMINISHED
LEGION. FORME
CITY ABANDONE

DIMINISHED ALARY
FORT; SOLDIERS AND
FAMILIES INSIDE WALLS

DEVASTATED FARMLANDS

ANDS DEVASTATED

UNWALLED CITY
DECAYED

CIVIL POPULATION
IN HILLTOP REFUGE-
TOWNS (PRE-ROMAN SITES)

UNWALLED
SETTLEMENT
ABANDONED

UNWALLED
SETTLEMENT
ABANDONED

CIVIL POPULATION IN
HILLTOP REFUGE-TOWN

ROAD IN DECAY

LEGEND

- ⬜ LEGIONARY BASE WITH SMALL GARRISON LEFT
- ⬚ EVACUATED FORT
- ✖ DESTROYED FARMHOUSE
- ⊡ FORTIFIED FARMHOUSE
- ⇨ BARBARIAN INCURSION
- ➡ ROMAN "ELASTIC DEFENSE"
- - - - IMPERIAL BOUNDARY

IMPROVISED
TOWN WALLS →

DEFENSE FORCE
(AVALRY) BASED
INTERIOR

0 1 2 3 4 5
MILES

Figure 3.1. Operational Methods of Border Defense: Elastic Defense

INITIAL BARBARIAN INCURSION

INITIAL ROMAN INTERCEPT AND SORTIES

EXPULSION COUNTEROFFENSIVE

LOGISTIC RETREAT (FAILURE TO SEIZE FOOD)

BARBARIAN
INCURSION

STRIKE BY
TROOPS

LEGIONARY FORTRESS
HEAVILY FORTIFIED.
DEFENDERS LAUNCH
LOCAL SORTIES

NEW
OUTPOST
FORT

ABANDONED
FORTS

FORMER LIMES
NOT REOCCUPIED

FORTIFIED BASE
FOR NEW LEGION
(C. 1000 MEN)

ABANDONED
FORT

TROOPS USED FOR
POLICE ACTION

LOCAL SORTIE

WALLED
TOWN

DOMESTIC
DISORDER

WALLED
TOWN

ROAD FORT
IMPOSE DELAY

FORTIFIED GRANARY
HOLDS OUT RAIDERS
SHORT OF FOOD

ROAD FORTS
IMPOSE DELAY

WALLED TOWNS CANNOT
BE TAKEN WITHOUT
SIEGE ENGINES

WALLED
TOWN

WALLED
TOWN

WALLED
TOWN

FORTIFIED GRANARY
TO DENY FOOD

LOCAL SORTIE
OF DEFENSE

LEGEND

| L | LEGIONARY BASE CONVERTED INTO (MUCH SMALLER) FORTRESS WITH FIGHTING TOWERS, ELEVATED FLOORS, ETC. |

DITTO FOR AUXILIARY FORT

WALLED TOWN

FORTIFIED FARMHOUSE

ROAD FORT

o WATCHTOWER

G FORTIFIED GOVERNMENT GRANARY

INTERCEPT BY
MOBILE ELEMENT
OF DEFENSE

TROOPS
PROVINCE

WALLED
TOWN

MILES

0 1 2 3 4 5

Figure 3.2. Operational Methods of Border Defense: Defense-in-Depth

LEGEND

- 🅛 — LEGIONARY "FORTRESS" (BASE)
- 🅐 — ALA FORT
- 🅧 — COHORT FORT
- o — GUARD POST
- ◻ — FARM HOUSE
- ▨ — AGRICULTURAL LAND (ARABLE)
- ▨ — HIGH GROUND
- ▨ — HIGHER GROUND
- ➡ — ROMAN FORWARD DEFENSE
- ⇨ — BARBARIAN ATTACK
- ⚏⚏⚏ — LAND FRONTIER

Figure 3.3. Operational Methods of Border Defense: Forward Defense

CAVALRY PINCER

STRATEGIC SALIENT
FOR FORWARD DEFENSE

A

PATROL TRACK

FORTRESS
PERIPHERY   MAJOR HIGHWAY

CIVILIAN CITY ON
SITE OF FORMER
LEGIONARY FORTRESS
(UNWALLED)

UNWALLED
SETTLEMENT

0   1   2   3   4   5
MILES

of either an increasingly shadowy imperial authority, or simply their own. The goal of a defense-in-depth strategy—that is, the ultimate restoration of full territorial security—had deteriorated into the goal of maintaining an elastic defense, which became increasingly elastic and was only of value to the individuals thereby protected and made powerful. The losses of logistic base areas now acquired a permanent character, because imperial authority was devolving to warrior nations that no longer raided, but rather occupied, what had once been part of the empire.

The Changing Threat

The Antonine system of preclusive security had always been vulnerable to simultaneous attacks from different directions. Most notably, the Parthian invasion of Armenia in 162 initiated a whole series of conflicts that were to last, with short intervals, until the death of Marcus Aurelius in 180.[23] The threat on the Danubian and (to a lesser extent) the Rhine sectors was permanent. The Parthian threat, on the other hand, was sporadic: Rome's eastern wars were fought with an organized state, and thus had a beginning and an end. Parthia and Rome remained strategic adversaries, but there was no warfare between them from 117 to 162.

When the eastern front became active in 162, *vexillationes* drawn from the legions, auxiliaries, and even complete legions were sent east, and the European frontiers were correspondingly weakened. It appears that even earlier there had been incursions by the Chatti against the Taunus limes, resulting in the attested destruction of frontier forts (e.g., Altenstadt).[24] At the same time, trouble was expected on the Danubian frontiers.[25] The Romans constantly watched the barbarians, but the barbarians also watched the Romans: with the frontier garrisons visibly depleted, they naturally saw new opportunities for profitable raiding.

By 166 the armies of Marcus Aurelius had repeated Trajan's feat: they had defeated the Parthians, taken Ctesiphon, and overrun the intervening lands, but no new frontier was established.[26] Victory in the east was followed by inconclusive war in the west. As the expeditionary forces were returning from the east, bringing a devastating plague with them, Quadi, Marcomanni, and (Sarmatian) Iazyges crossed the Danube over lengthy tracts, evaded or defeated the badly outnumbered frontier garrisons, and advanced in bands large and small deep into the empire.[27] In the foreover dubious yet too often indispensable *Scriptores Historiae Augustae*, it was a barbarian "conspiracy" (*Vita*

Marci, 22.1: "gentes omnes ab Illyrici limite usque in Galliam conspiraverant"), but even without any coordination, the opportunity offered by the absence of Roman forces, and then by their return badly diminished by plague, must have been simultaneously visible to all.

In spite of a severe fiscal crisis and in spite of the chronic shortage of manpower aggravated by plague, two new legions, the II and III Italica, were raised, circa 165.[28] By 167 Quadi and Marcomanni were at Aquileia, the northeastern gateway to Italy.[29] It was the empire's gravest military crisis since the inception of the principate.[30] Desperate expedients were employed to find recruits, starting with the enrollment of freedmen and even slaves. In addition, strong forces of auxiliaries as well as *vexillationes* detached from the frontier legions (of much increased importance in the total force mix) were deployed as field forces to counter the new threat.[31]

With an undefended interior, enemy penetrations could and did reach far and wide, but the threat was not normally especially intense. The damage inflicted by fleeting barbarian incursions was in most places superficial, because hungry invaders would not long persist in trying to breach closed wall circuits; it was readily available food and loot that they were seeking. Aquileia, though devoid of troops and without a proper wall circuit, was hurriedly provided with improvised defenses, and it did not fall. The Quadi and Marcomanni were not equipped or organized for siege operations; their attack was only a large-scale raid, and it seems unlikely that their aim was conquest rather than booty.

Because the raiders could not seriously damage the empire's logistic base, Rome's eventual victory was only a question of time. By 172 the Marcomanni had been driven out of the empire, and a peace was imposed on them; two years later the Quadi were suppressed, and in 175 it was the turn of the Sarmatians.[32] When the Quadi and Marcomanni renewed hostilities in 177, the outcome was a great Roman victory on the Danube in 179.[33] Marcus Aurelius may well have planned a trans-Danubian operation to conquer the homeland of the Marcomanni, and much else besides, but this project, if still envisaged by then, was abandoned by his son Commodus upon the emperor's death in 180.

It is impossible to quantify in any way, however approximative, the magnitude of the endemic threat on the Danube that became manifest after 166. In the fragmentary sources describing the period, there is, for example, a reference to 6,000 Langobardi and Obii who broke into Pannonia, having breached the Danubian limes.[34] A legion with its auxiliaries could easily defeat such a force, if only the enemy could be located and constrained to battle. But the significance

of the number is unclear: was 6,000 a large number, the survivors of a larger invasion, or an average invading force?

Fortunately, there is no need to quantify the change in order to establish that the overall threat faced by the empire during and after the third century was much greater than that of the two preceding centuries. The narrative sources provide enough evidence to show that the Goths, whose westward attacks had reached Tyras on the Dniester by 238 and who crossed the Danube delta four years later, were a much more formidable enemy than the Carpi and Sarmatians, who had been until then the major enemies in lower Moesia.[35] Similarly, the tribal confederation known as the Alamanni, whose attacks forced the evacuation of the Antonine limes beyond the Rhine and Danube by 260,[36] and the confederation known as the Franks on the lower Rhine, who broke through the frontier en masse following the collapse of the Gallic empire in 275,[37] were clearly more menacing than their predecessors on those same sectors. Rome also faced the new seaborne threat of Saxon raiders against southern England and the Gallic coasts, whose depredations, based on the evidence of coin hoards, seem to have become intense over the years 268–282.[38]

Sea raids were not unknown in the first and second centuries, but they had been both small and localized. The new seaborne incursions of the Franks and Saxons in the channel and of the Goths, Heruli, and associated peoples in the Black Sea and the eastern Mediterranean were qualitatively different: from about 253 until about 269, Goths and Heruli ravaged first the Black Sea coasts and later the Aegean cities in a crescendo of raiding expeditions, often leaving their boats and penetrating deep inland.[39] In the process, productive lands were devastated, and important cities were attacked, sacked, and sometimes destroyed: Pityus in the first wave of sea raids in 253; Trapezus and other Pontic cities in 254 or 255; and Chalcedon, Nicomedia, and other Bithynian cities in 256, when the raiders sailed through the Hellespont into the Aegean.[40]

After almost a decade of lesser attacks in 266 and 267, the Goths, Heruli, and their allies again raided Thrace, Macedonia, Greece, and Asia Minor in large combined expeditions by sea, while attacks also continued on land.[41] Among many cities large and small, Athens, still a place of importance but like other cities virtually undefended, fell to Heruli sea raiders in 267. In one of the famous episodes of both history and historiography, Dexippus rallied 2,000 Athenians to fight the Heruli, but the city had already fallen;[42] it was not to recover until the fifth century.[43]

From the strategic point of view, the security problem presented by the new seaborne threat was immense. The incremental cost to the empire of providing a *land*-based defense of 3,000 miles of coastline (not counting peninsular and insular shores) against sea raids was wholly disproportionate to the magnitude and degree of persistence of the threat, which was both very sporadic and very localized. Moreover, while in the Black Sea and in the Mediterranean naval supremacy could ensure security on land, this was not true of the open sea north of the channel. A few thousand sea raiders could inflict more damage, and cause more costly countermeasures to be adopted, than could twice or several times their number on land. An entirely new coastal defense organization had to be created for the "Saxon shore" in Britain and northwestern Gaul. (A "*Comes Litoris Saxonici per Britanniam*" is found in charge of sector defenses in the *Notitia Dignitatum*, that most precious late listing of Roman civil offices and military formations.)[44]

Notoriously, the narrative sources give inordinately high figures for the size of the raiding armadas and warrior armies of the Goths and their allies; notably, in the *Scriptores Historiae Augustae* (*Vita Claudii*, 6.3–4) we find 2,000 ships participating in the Goth expedition of 267, and 320,000 warriors advancing on land across the modern Dobruja. Naturally, modern historiography does not accept such estimates even as very rough approximations, though it may be surmised that the dimensions of the threat were unusually large—indeed the largest that faced Rome in the third century.[45] Only statistics that we do not have could *prove* that the threat had become stronger, and not the empire weaker. After all, acute political disarray is evident in the multiple and chronic usurpations that repeatedly disrupted the central power between the death of Severus Alexander in 235 and the accession of Diocletian in 284. There is also incontrovertible evidence of economic weakness and fiscal inadequacy. But the fundamental change in the external environment of the empire took place in the East, and its crucial significance is unequivocal. In 224–226 the Parthian state of the Arsacids was overthrown by the Sassanids, who founded the new empire of Persia, destined to be a far more formidable foe for centuries to come.[46]

In a sense, the entire system of preclusive defense of the second century had been based on the implicit assumption that an essentially weak Parthia would remain the only major threat in the East, for otherwise emperors could not have focused on keeping out infiltrators and mere marauders as opposed to
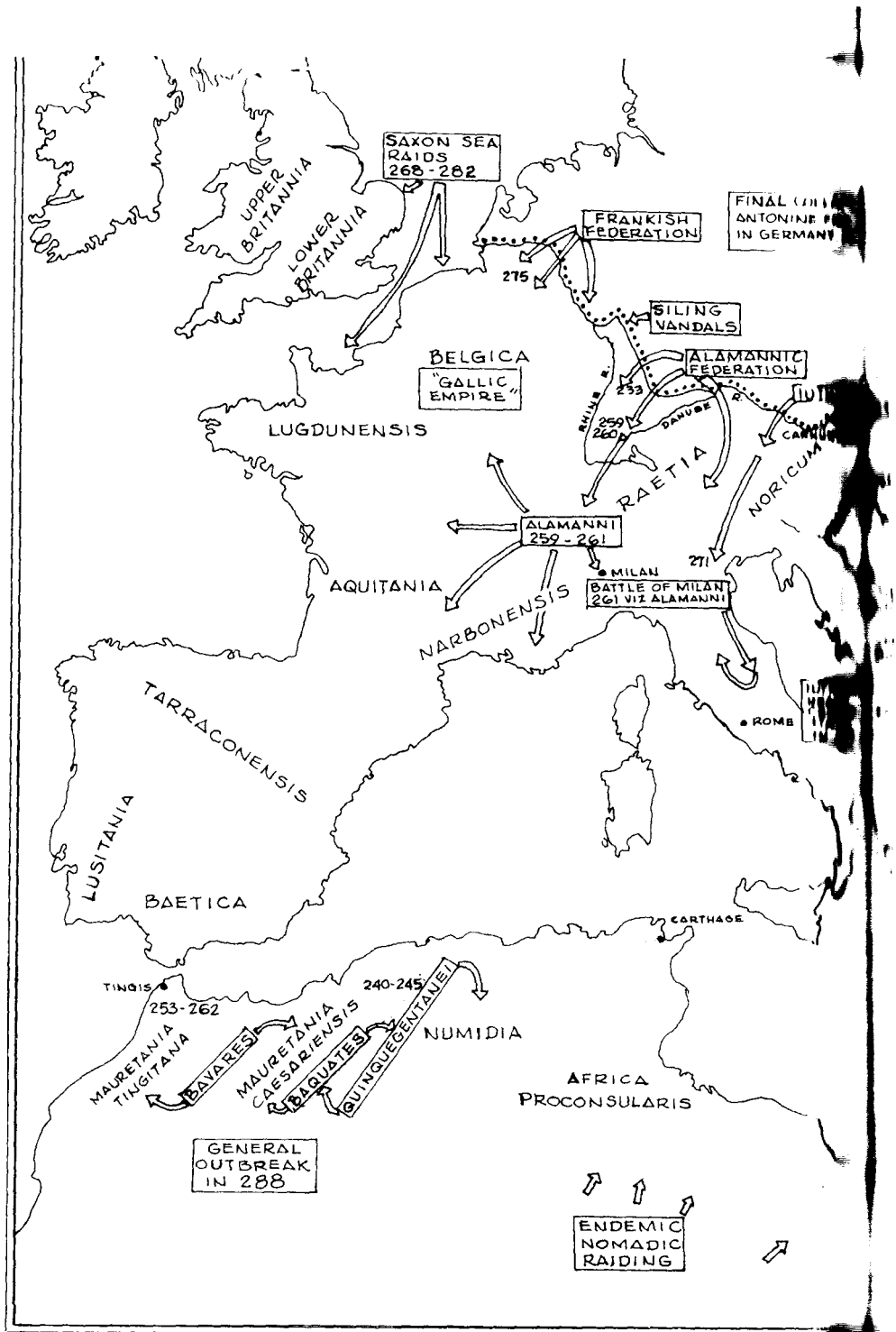
Map 3.1. The Great Crisis of the Third Century
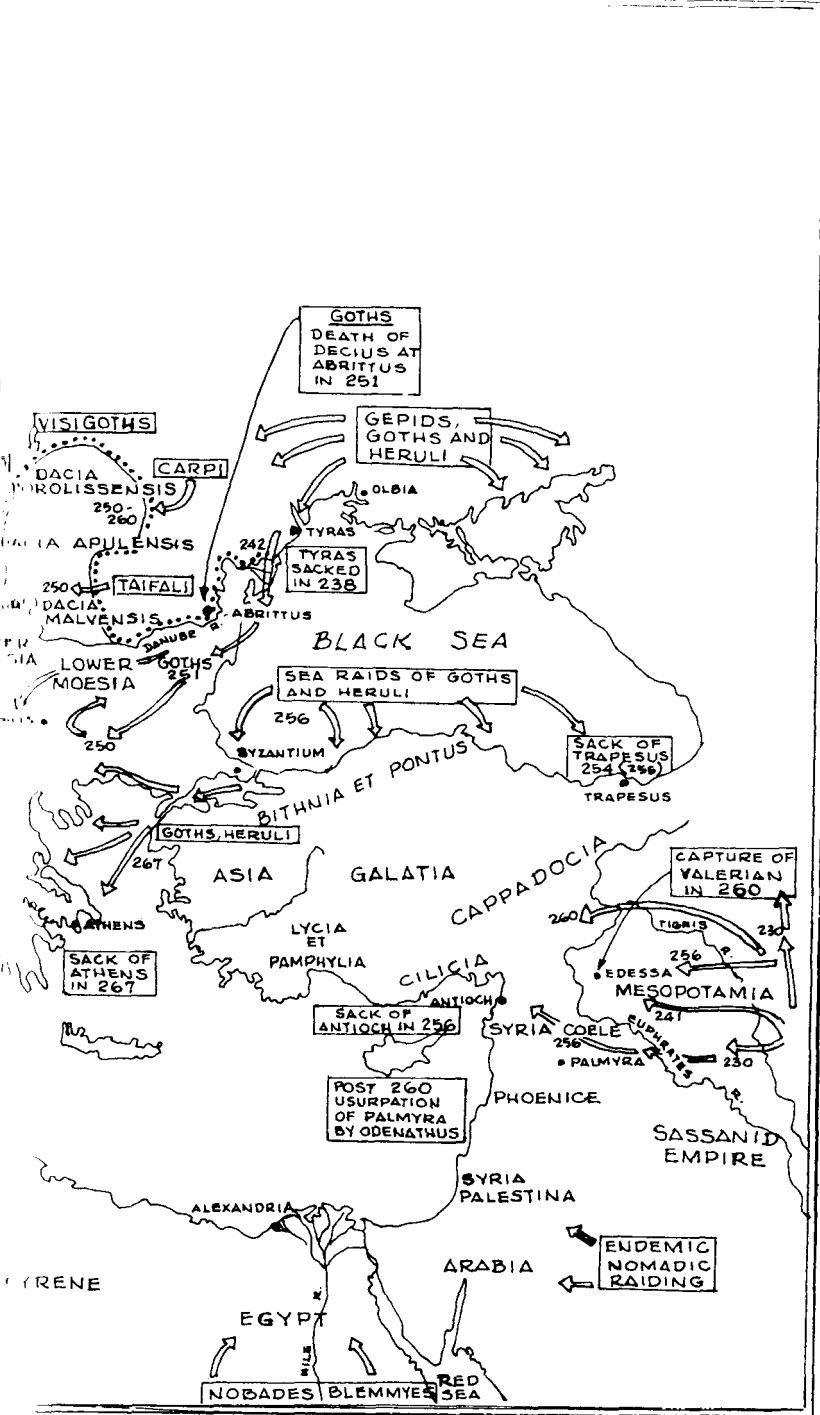
entire armies. Parthia was apt to contest Roman control of Armenia, but otherwise the threat it presented was only sporadic: Trajan fought his Parthian War, and so did Marcus Aurelius almost half a century later. Septimius Severus fought Parthia in 195 and again in 197–199; like his predecessors, he won. Once Roman expeditionary forces were properly mustered out of European garrisons and properly deployed in sufficient concentrations, the Parthians invariably lost. Severus had, in fact, concluded his campaigns with the organization of a permanent limes on the line of the Khabur River, Jebel Sinjar, and east to the Tigris, garrisoned by his new legions, I and III Parthica.[47]

In addition to being sporadic, the Parthian threat had also been limited in its geographic scope; there is no sign of an Arsacid program of conquest extending to Syria or Cappadocia, both core areas of the empire. The strategic weakness of the Parthian state was organic: organized as an assemblage of semiautonomous vassal states under Arsacid suzerainty, Parthia was inherently vulnerable to the divisive manipulations of Roman diplomacy and incapable of fully mobilizing the considerable military resources of the Iranian plateau and the adjacent lands.[48] All this changed with the rise of the Sassanids. First, the new state was much more centralized than the old, having both administrative and ideological instrumentalities of control that the Arsacids had lacked—most important, a state religion.[49] Second, almost from the start, Sassanid expansionism transcended the scope of Arsacid ambitions, which had been limited to Armenia.

The first of the Sassanid emperors, Ardashir I, like the more vigorous of his successors, starting with his son, Shapur I (r. 241–272), was already aiming at the conquest of northern Mesopotamia and much else beyond.[50] Herodian (6.2.7) reported that Ardashir, after having killed Artabanus of Parthia and conquered his neighbors,[51] turned his ambition to Rome. Indeed until the final defeat of the Sassanid power in the seventh century, the Romans frequently had to defend Syria and any Mesopotamian territories they held from the "Kings of Kings of Iran and non-Iran,"[52] as the rulers styled themselves from Shapur I (the conqueror) onward.

A third difference between the Arsacid and Sassanid threats was tactical. Under the Sassanids, the combined light and heavy cavalry tactics of the Arsacids (threaten with the heavy, so that the light could launch its arrows into the resulting concentration) were generally improved, but the real difference was that the Sassanids, unlike the Arsacids, developed an adequate siege-warfare technology.[53] Given the overall character of war in the East, which essentially

mounted to cavalry skirmishing and rare cavalry battles followed by siege operations, the new siege capabilities of the Sassanid armies were of obvious importance.

A bare chronology suffices to illustrate the persistence of the Sassanid threat. In 230 Ardashir attacked imperial territory in northern Mesopotamia after an unsuccessful offensive against Armenia (then ruled by an Arsacid client king of the empire). Severus Alexander responded by personally taking an army to the East; he won some battles and lost more, but succeeded nevertheless in restoring the status quo ante by 233.[54] In 241 the Sassanids were much more successful, overrunning northern Mesopotamia, including both Nisibis and Carrhae, and conquering territory as far west as Antioch.[55] The Romans launched a counteroffensive (nominally under the command of Gordian III) in 242–243, but this did not succeed in restoring the status quo ante. In the peace treaty of 244, concluded by Gordian's successor, Philip the Arab, Edessa and the entire client state of Osrhoene around it were lost; its vassal king, Abgar XI, took refuge in Rome. In 252, a time of especial weakess for the Roman empire, as he must have known, Shapur I launched the first of his great offensives. Warfare was thereafter intermittent for three decades. Roman fortunes reached their nadir in 260, when Valerian was captured at Edessa, to remain in Persian captivity until his death.[56]

Ultimately, however, the third-century Sassanid attempt to drive the frontier of the empire back into Syria failed. The campaigns of the great soldier-emperors Aurelian, Carus, and, later, Galerius reestablished Roman predominance in northern Mesopotamia and the region by the end of the century, and did so very decisively. The peace agreement of 298 confirmed Roman suzerainty over Armenia and set the northern Mesopotamian border on the Khabur River–Singara–Lake Van line. There the frontier was to remain in peace and in war until Jovian's treaty with Shapur II in 363, whereby northern Mesopotamia, including Nisibis, was finally ceded to the Persians.[57]

The total effect of Sassanid pressure on the empire was altogether more disastrous than these territorial changes would suggest. Once the heightened threat in the East became manifest, the entire system of preclusive defense became unbalanced. Because of the system's limited supply of *disposable* mobile forces—that is, forces that could safely be borrowed from provincial garrisons—it was essential that threats on any given sector be successfully dealt with before new ones emerged elsewhere. Legionary *vexillationes* and auxiliary troops concentrated on the Rhine could be redeployed on the middle Danube in a

matter of weeks; assuming an 8 hour marching day at 3 mph, unburdened in fantry could march from the channel coast to the Black Sea in less than 50 days. This meant that during the summer and autumn months, when orga nized tribal raiding was most likely, the same units could fight at opposite ends of the empire's European frontiers during the same campaign season. (I can cite no example when it happened, but that it could happen was itself reassur ing.) Not so for troops committed to northern Mesopotamia, regardless of how successful their campaigning might be. Due to the greater distance, the systemic costs of warfare against Persia were disproportionately greater than the size of the forces required, large though they were.

The threat on the Rhine and Danube was endemic, but it was not until the emergence of an equally endemic threat in the East that the overall burden on the disposable forces of the empire became overwhelming. From then on, si multaneous pressures on distant sectors ceased to be a rare contingency and became a chronic predicament. Thus, major Alammanic attacks on the Upper German–Raetian frontiers in 233, with the attested destruction of several frontier forts,[58] and a more persistent weakness coincided with the conclusion of the Roman counteroffensive against Ardashir I of the Sassanids. Similarly, the collapse of the overland frontier between the Rhine and the Danube took place (by 260) at a time of maximal pressure in the East:[59] Shapur's forces had taken Antioch itself in 256, while the sea raids of the Goths and Heruli were at their height in Asia Minor.

There was a perceptible two-way interaction, intentional or otherwise, between the rhythm of the Goths' attacks on land and at sea and the intensifi cation of Persian pressures in the East. In 250 the emperor Decius set out to reestablish the lower Danubian frontier, and after driving the Carpi from Dacia Malvensis, his forces engaged the Goths, who had penetrated into Thrace, forcing them to raise the siege of Nicopolis.[60] A war of strategic maneuver followed, in which the Goths were eventually forced to withdraw northward into the Dobruja.

It seems (the sources are especially poor) that a catastrophic tactical defeat then reversed an apparent strategic victory: the Roman field army under Decius was destroyed at Abrittus (in the central Dobruja) in 251.[61] As already noted, in 252 Shapur opened a major offensive in the East. In the next four years came the deluge: Dacia was submerged by invaders, the Goths reached Salonika, sea raiders ravaged the coasts, and Shapur's armies conquered territory as far west as Antioch, while in the West, the Franks and Alamanni were subjecting the

entire Rhine frontier and the upper Danube to almost constant pressure. The attacks in the West culminated in 260—the year of Valerian's disaster, when Shapur's advance threatened even Cilicia and Cappadocia.[62]

New federations of old neighbors of the empire, such as the Franks and Alamanni, on top of the relatively new arrivals in the immediate vicinity of the *limites*, the Gepids, Goths, Heruli, and Vandals (the Asdings opposite Pannonia, the Silings on the Main), necessarily constituted a threat greater than that of their older, established predecessors. But in addition to that and the intensification of the eastern threat, a qualitative deterioration in the integrity of the imperial leadership is also apparent. While some usurpations reflected breakdowns in security and did not cause them—they were the acts of men competing as security providers (or else affirmations of *regional* security interests)—other usurpations demonstrably *caused* the weakening of the frontiers, when border forces were depleted or just removed wholesale to fight in domestic struggles for power. So it was when the Rhine defenses were stripped in 253, once Trebonianus Gallus sent troops to fight Aemilianus; then for the campaign of Gallienus against Ingenuus in 258; and in the redeployment of frontier troops to Italy by Postumus, the Gallic emperor, in 269.[63]

Owing to the repeated removal of *vexillationes*, legionary bases by the later third century probably contained for the most part old soldiers and those men otherwise unfit for duty in the field. It was not the Hadrianic system of preclusive security through a forward defense that was tested in the crisis of the third century, but only the empty shell of that system, stripped of its indispensable element of *tactical* mobility and deprived of its limited but still extant strategic elasticity, which derived from well-manned legions from which *vexillationes* could be borrowed for specific campaigns without crippling their strength. The Alamanni who broke through the Neckar valley and overran the overland lines of Upper Germany and Raetia by 260 were *probably* stronger than the Chatti whom Domitian had successfully driven beyond the Taunus, but it is *certain* that the imperial frontiers they attacked had become much weaker.

In addition to the diminution of the troops and the general lowering of their quality, there was now a functional dissonance between the infrastructure of fortifications, the strategy, and the nature of the troops left to implement it. Static troops personally attached to their sectors by virtue of their own local interests could have been very useful if they had been deployed in a system of border defense organized to take advantage of their peculiar qualities. The frontiers, however, were still organized to support primarily *offensive* tactics,

for which their now settled-in defenders were no longer suited. The reorgani
zation of frontier defenses during and after the third century was therefore a
realistic adaptation of the system to the available resources. Static and increas
ingly militia-like troops could not be expected to serve effectively in mobile
striking forces, but if provided with stout walls and high towers, they could
hold out just as long as the finest mobile troops. At the same time, of course,
the quality of the border troops was a function of overall imperial strategy,
which now tended to allocate the better fighting men to the mobile field
armies. Once that strategic change was accomplished, frontier defense tactics
had to be changed also: third-century border troops could not successfully
execute second-century forward defense tactics, but they could be perfectly
satisfactory in manning the fixed elements of a defense-in-depth.

There was no need for a general headquarters manned by skilled staff offi
cers and well provided with equally nonexistent maps to calculate all these
factors and to then deliberately correlate tactical changes with the change in
the overall strategy: the adaptation happened because it had to happen. In
creasingly localized and married militia-like troops were equally unwilling
and unable either to attack strongly or to run away, leaving their families behind.

The New Borders of the Empire

In the year 298, the great victory of Galerius (Diocletian's junior emperor, or
Caesar) enabled Diocletian to make a peace agreement with Persia that was to
endure for 30 years. Its terms were advantageous: the Roman frontier was ad
vanced beyond Singara, running due northeast along the Tigris and then west
again, just south of Lake Van.[64] This was a line both more advanced and more
easily defensible than the old frontier, which had been under Sassanid pressure
ever since 230 and which had repeatedly been overrun in the troubled years
thereafter.

In the East, and only there, the empire emerged from the tempest of the
third century with an enhanced strategic position and even some territorial
gains. The entire coastal strip running from Egypt to Anatolia was once again
protected by a broad wedge of imperial territory to its east that was hinged on
the Khabur River–Jebel Sinjar–Tigris line in northern Mesopotamia. As be
fore, the Syrian desert to the south and the Armenian highlands to the north
were outside the frontier: if held in strength, the northern Mesopotamian sa
lient alone could protect the eastern provinces from Persian attack and would

also ensure the subjection of the thinly scattered Arabs to the south and the Armenian mountain folk to the north.[65]

Elsewhere, the reorganization of imperial defenses under Diocletian and the tetrarchy saw the formalization of losses rather than of gains. The Dacian provinces beyond the Danube had been lost in stages; with the abandonment of the Severan Limes Transalutanus under Aurelian (r. 270–275), the frontier reverted to the pre-Trajanic line of the river.[66] This was true in Germany as well, where the lands east of the Rhine and north of the Danube in Upper Germany and western Raetia had been abandoned and the frontier brought back to the Rhine–Iller–Danube line by 260.[67] At the extremities of the empire, a similar retreat had taken place in Mauretania Tingitana, which was reduced to a semicircular bridgehead south of Tingis (Tangier) through the abandonment of the southern limes of Volubilis and of the wedge of territory due east; the latter may have served to connect Tingitana with Mauretania Caesariensis and the rest of Roman North Africa.[68] In Egypt, the southern glacis of the Dodekaschoinos (in lower Nubia, from the first cataract to Hiera Sycaminos) was abandoned, and the Roman frontier was brought back to Elephantine on the first cataract.[69]

Although these territorial losses reflected in large measure the force of circumstances, the tetrarchic reorganization of the frontiers also presents the unmistakable signs of a deliberate policy of consolidation and rationalization. Even without the maps and geographic expertise deemed essential by modern historians, the Romans obviously acted in a coherent manner by giving up their more exposed territories to obtain more defensible frontiers, shorter and straighter than hitherto. It may well be that the Alamanni, Burgundi, and Iuthungi were simply too strong to be dislodged from the *agri decumates* and the entire Rhine–Danube salient, but it is also evident that given a strategy of defense-in-depth, the Romans no longer found it advantageous to hold the Antonine limes that had cut across the base of the salient. The Taunus ridge, if securely held, could provide a strategic base for southward attacks on enemies pressing into the *agri decumates*, but it would no longer be very useful if the strategy was to meet major attacks *within* imperial territory.

The same conditions prevailed in Dacia. There, with Carpi and Visigoths established in the Transylvanian highlands and in Wallachia, the Taifali in Oltenia, and the Sarmatians still in the Banat (but under pressure from the Asding Vandals established in what is now eastern Hungary),[70] it would

undoubtedly have been very difficult to reestablish Roman control over Dacia (i.e., Transylvania and the Oltenia land bridge). But in any case the tetrarchic form of defense-in-depth was, as we shall see, shallow, and it did not require advanced salients. The legions and cavalry units of each province, reinforced if need be by expeditionary forces, were to defend imperial territory on a *provin cial* scale. In contrast, the earlier forward defense system hinged on Dacia had been *regional* in scale, with the Dacian provinces forming a defended salient from which lateral counteroffensives into the Banat to the west and Wallachia to the east were possible. Whether or not the new strategy was the right one from a conceptual standpoint, it is clear that its adoption would considerably reduce the military value of the Dacian salient. It was only when Constantine resumed an aggressive strategy of forward defense that a bridge across the Danube was built in 328 to provide access into the Olt valley. This trans Danubian bridgehead was used, as Dacia as a whole had been used, as a base for lateral attacks.[71] In 332, for example, the Visigoths, then attacking the client Sarmatians in the Banat, were taken in the flank by a Roman force coming from the Olt valley and suffered a shattering defeat.

Such strategic conjecture can be validated with conclusive evidence in the case of the retreat in Tingitana. In North Africa, the recurrent raids of the Mauri and the attacks of the Baquates in 240–245 evolved into a general attack by nomads and highlanders in 253–262, which affected Mauretania Caesarensis, Sitifensis, and Numidia—and perhaps Africa Proconsularis (modern Tunisia) as well.[72] Local punitive campaigns reestablished Roman control each time, but in 288, when there was another outbreak affecting the region as a whole, the empire could finally respond on a very large scale.

Landing in Tingitana, directly across the narrow strait from Spain, Diocle tian's junior Augustus, Maximian, brought an expeditionary army to North Africa composed of Praetorian cohorts, *vexillationes* of the XI Claudia (from Aquileia), II Herculia (from lower Moesia), and II Traiana (from Egypt), as well as German and Gallic *numeri*, Thracian recruits, and perhaps recalled veter ans.[73] Operating in the grand manner of old, Maximian advanced across the full width of North Africa from Tingis to Carthage. There on March 10, 298, Maximian made a triumphal entry, after having defeated the Baquates, Bavares, and Quinquegentiani; pursued the Berbers of the Rif, Aurès, and Kabylie into their mountains;[74] and driven the nomad tribesmen back into the Sahara.[75]

Maximian's pacification offensive had been very successful, yet it was then that Volubilis and its limes were evacuated.[76] In that, as in other sectors, there

was logic in the seemingly contradictory sequence of victory and retreat: local victory had created the right conditions for the frontier reorganization dictated by empire-wide strategic considerations. Defeated, the barbarians could no doubt be reduced to dependence, and a buffer zone controlled by clients could be reestablished in front of the new limites. With so many tribesmen dead or maimed, the Romans might hope that the rest would respect the inviolability of Roman lands, at least for a time.

The retreat from the southern extremity of Egypt further substantiates the conjecture. In that sector, there is evidence that the new frontier line (hinged on the Elephantine) was protected by a client structure: the sedentary Nobades were established on the Nile in order to contain the pressure of the nomadic Blemmyes.[77] A sound frontier was one strong enough to ensure the subjection of strong-enough clients beyond it—clients who could relieve Roman troops of the burden of day-to-day border policing against low-intensity threats but not so strong that they could threaten the Romans as well. The new strategy no longer aimed at providing a forward defense and did not even require a glacis of reliable clients; it certainly no longer required forward positions and offensive salients. In the language of modern commerce, the frontiers of the empire that emerged from the near shipwreck of the third century had been "rationalized": exposed salients, necessary for the earlier tactically offensive component of the preclusive defense strategy, had given way to simpler river lines in Europe and shorter desert frontiers in North Africa.

It was only in the East that a forward defense frontier system was reestablished, once again with obvious deliberation. After a poor start, Galerius had outmaneuvered and thoroughly defeated the Sassanid army in 297. In the ensuing negotiations, Diocletian contented himself with the old frontier established by Septimius Severus, except for the addition of minor satrapies across the Tigris (for which the pro-Roman king of Armenia, Tiridates III, was compensated at Persian expense, with Media Atropatene).[78] It is noteworthy that Diocletian refrained from claiming land due east of Singara across the Tigris and south of the Jebel Sinjar line, lands that Rome had briefly held in the wake of Trajan's conquests after 115 and that were the very embodiment of that fateful overextension. Here, too, the frontier was complemented by client relationships: with Armenia, of course, and with the Iberian kingdom in the Caucasus, which was already strategically important and was destined to be still more so, as the threat emanating from Transcaucasia became more dangerous.

ATLANTIC OCEAN

NORTH SEA

HIBERNIA

FLAVIA CAESARIENSIS

MAXIMA CAESARIENSIS

BRITANNIA

HADRIAN'S WALL

GERMANIA

EVACUATION OF LANDS BEYOND RHINE

BELGICA II
BELGICA I

LUGDUNENSIS II
LUGDUNENSIS I

BANAT

ANTONINE LIMI AGRI DECUMA ABANDONEU

RAETIA

NORICUM
NORICUM MED

AQUITANICA

SEQUANIA

GALLAECIA

NOVEM-POPULI

ALPES G LIGURIA

VENETIA ET HISTRIA

TARRACONENSIS

NARBONENSIS

VIENNENSIS

ALPES COTTIAE AEMILIA

FLAMINIA

PICENUM

SCYTHIA

BLACK SEA

CASPIAN SEA

LUSITANIA

CORSICA

TUSCIA UMBRIA VALERIA

LOWER MOESIA

MAEM MONTUS

PAPHLAGONIA

DIOS-PONTUS

PONTUS POLEMONIACUS

ARMENIA

CARTHAGINIENSIS

SAMNIUM
CAMPANIA
APU

THRACIA

RHODOPE

BITHYNIA

GALATIA

CAPPADOCIA

LOWER ARMENIA

MESOPOTAMIA

MEDIA

BAETICA

SARDINIA

HELLESPONTUS

PHRYGIA I

ASIA

PHRYGIA II

PISIDIA

LYDIA

OSRHOENE

TIGRIS

ADIABENE

MAURETANIA TINGITANA

LIMES OF VOLUBILIS (EVACUATED 298)

SICILIA

CARIA

LYCIA ET PAMPHYLIA

ISAURIA

CILICIA

AUGUSTA EUPHRATENSIS

EUPHRATES

MAURETANIA CAESARIENSIS

MAURETANIA ZABIA

PROCONSULARIS

CYPRUS

SYRIA COELE

MESOPOTAMIA RECONQUERED TREATY OF 298

NUMIDIA

BYZACENA

AUGUSTA LIBANENSIS

ARABIA BOSTRENSIS

TRIPOLITANA

SEA

PALAESTINA

LEGEND

BYZACENA - TETRARCHIC PROVINCES

— — — - ROMAN LAND FRONTIERS

LOWER LIBYA

AEGYPTUS

ARABIA PETRAEA

HERCULEA

THEBAIS

RED SEA

DODECACHOINOS EVACUATED 297

Map. The Frontiers of the Tetrarchy and the New Provinces

Walled Towns and Hard-Point Defenses

Rationalization was a necessary but insufficient condition for the implementation of the new strategy. Once Diocletian and his colleagues had restored the strength of the empire to the point that a *shallow* defense-in-depth on a provincial scale could be substituted for the deep elastic defense of the later third century, the fortifications of the frontier zones had to be changed. It was not enough to repair the fortresses, forts, and watchtowers of the principate; mere bases for offensive forces were no longer adequate. Now it became necessary to build forts capable of sustained resistance, and these fortifications had to be built in depth in order to protect internal lines of communication.[79] Instead of a thin perimeter line on the edges of provincial territory, broad zones of military control had to be created to protect the territory within which civilians could live in security, as civilians.

An extreme example of this pattern was the province of Palaestina III (Salutaris), which included the Negev and the southern half of the former province of Arabia and which was organized essentially as a military zone. There, the limes did not exist to protect a province, but rather the province existed to sustain the limes, which served a broad *regional* function in protecting the southern Levant from nomad attacks. Articulated in depth on the inner line (Gaza–Beersheba–Arava) and the outer perimeter (Nitzana–Petra) and extending south from Petra to the Red Sea, the defenses of Palaestina Salutaris were "studded with fortifications," all defensible hard points built in the new style. At Mesad Boqeq, for example, a typical Diocletianic *quadriburgium* has been found: it is small (22 by 22 meters) and has four massive square towers projecting outward.[80] Water sources and signal stations were also fortified in the province-wide defended zone, and the few roads were carefully protected. For example, the critical Scorpion Pass, which provided the main westerly link between Aila (now Elat) on the Red Sea (where elements of the legion X Fretensis were stationed ca. 300) and the North, was guarded by road forts at either end, a halfway station in the middle, lookout towers at the approaches, and a control point at the highest elevation. One scholar, whose overall thesis was that no systematic limes or defensive strategy existed at all, specifically rejected the notion that there was a double line of defense "marked by Diocletianic *castella*."[81] He also saw no evidence of any nomad pressure nor of the aggressive transhumance that destroyed towns near deserts whenever and wherever they were undefended. This author found some support for his reductionist thesis,"

but not from the scholar who specialized in Negev archaeology for the period,[83] who quite reasonably interpreted serious fortifications as evidence that there was a serious threat.

At the opposite end of the imperial perimeter, in northwestern Europe, equal care was taken to fortify important highways leading from the frontiers to the interior. Under the principate, important highways had been lightly guarded by soldiers detached from their legions for police duties (*beneficiarii consularis*).[84] But from the second half of the third century onward, both normal forts and small road forts (*burgi*) began to be built on the highways in the rear of the frontiers, as for example in the case of the Cologne–Tongres–Bavay road (which continued to the channel coast at Boulogne),[85] and the highways from Trier to Cologne and from Reims to Strasbourg.[86] In the wake of the great Alammanic invasion of Italy in 259–260, which the emperor Gallienus finally defeated at Milan, and the invasion of the Iuthungi a decade later, which Aurelian crushed in the Po valley, the defense of the transalpine roads became an important priority. The goal was the erection of multiple barriers across the invasion corridors leading to northern Italy.

This effort, which may have begun in a systematic manner under the tetrarchy, was continued thereafter whenever there was sufficient stability for long-term investments to be made, and this happened as late as the latter half of the fourth century.[87] Those barriers were designed to impede the very deep penetrations that had characterized the third-century raids—though some are better thought of as offensives—such as those of the Alamanni in 259, which reached as far as southern France and Spain and into northern Italy.[88] Bands of pillaging Alamanni had then penetrated into Lyon and even Clermont-Ferrand in France, down the Rhone valley and across into Spain; coin hoards of the period have been found in northeastern Spain.[89]

At their initial breaching points, the barbarians would have been concentrated and therefore formidable, but in the course of the subsequent forays, they must have dispersed to find their loot. We can thus see the logic of the small road forts and small civilian refuges that were then built, which would have been of little use in resisting any concentrated mass of barbarians, like the one that was defeated by Gallienus near Milan in 260 (100,000 of them in the improbable narrative, but many no doubt).[90] Road forts and refuges also provided some security from a new internal threat: bands of brigands (*bagaudae*), the product of a society that remained oppressive and exploitative even in a time of near collapse.[91]

At the tactical level, there is a striking difference between the forts and fortresses of the principate and the strongholds of the later empire. The latter are far from homogeneous, and over the period from Diocletian to the fifth century there are major differences in design (though the inadequacy of dating methods makes chronological distinctions difficult). For our purposes, however, the entire period of late Roman fortification, from the second half of the third century to the last sustained effort under Valentinian a century later, may be treated as a whole.

First, there is a difference in siting. While some fortifications were still built for residential and logistic convenience, that is, in close proximity to highways and on flat ground, most late Roman fortifications were positioned, whenever possible, for tactical dominance. The most likely reason for the change was that the concentrated forces of the principate could deal with their enemies by going over to the offensive, while the smaller frontier garrisons of the late empire would often be obliged to resist in place, awaiting the arrival of provincial, regional, or even empire-wide reinforcements. Accordingly, naturally strong positions were of prime importance. Examples of this siting may be found in Basel, Zurzach, Burg near Stein am Rhein, Arbon, Kostanz, Kempten, and Isny on the upper Rhine and in Raetia. On the lower Rhine, where the ground is mostly flat, forts were built on the few available hills even if their locations were not otherwise suitable—as at Qualburg and Nijmegen.[92] This evident preference for easily defensible (if less convenient) terrain is further manifest in the siting of the fortifications of the tetrarchic road fort and patrol system on the Syrian sector, based on the forward line of the Strata Diocletiana, running from Palmyra all the way south toward the Gulf of Elat on the Red Sea.[93]

A second clear-cut difference between the forts and fortresses of the principate and the strongholds of the later empire is their ground plan. Old-style rectangles with rounded ditch defenses naturally persisted, because in many cases old fortifications remained in use, but the square layout became predominant, together with irregular quadrilaterals (Yverdon), rough circles (Jiinkerath), and bell shapes—where the broader side rested along a river or the sea (Koblenz, Altenburg, Solothurn, Altrip).[94] The advantage of proximate circles and proximate squares over the older rectangular pattern is, as noted above, the shorter length of the wall circuit for any given internal area. The perfect circle—theoretically optimal—was normally avoided because it was

difficult to build. The irregular wall circuits that were to become characteristic of medieval structures began to appear in places where the walls followed the irregularities of the ground—high, defensible ground, that is (as in Vemania-cum, Pevensey, and Pilismarot on the Danube, among others).[95] This pattern also occurred where irregular river lines were used as part of the circuit.[96]

Another important difference between the forts and fortresses of the principate and the strongholds of the later empire is their outer defense structure: the perimeter ditches and berms. Instead of the narrow, V-shaped ditches with narrow berms—only 7 or 8 feet wide—characteristic of first- and second-century structures, we find much wider berms, from 25 to as much as 90 feet wide, while the ditches, single or double and often flat-bottomed, were also much wider, ranging from 25 to 45 feet or more.[97] Wide ditches were evidently meant to keep the rams and siege engines of the attackers away from the wall. The Sassanid armies, unlike those of the Arsacids, were equipped with siege engines, and the expert Ammianus Marcellinus reported (20.6.5) an *"aries ro-bustissimus,"* a very powerful ram, at the siege of Singara in 359 CE. Earlier, ironclad towers serving as firing platforms for artillery, had been unsuccess-fully used by the forces of Shapur II at the siege of Amida.

Even the northern barbarians were not devoid of technical inventiveness,[98] although they had no systematic siege technology. But the more important strategic change was on the Roman side: small garrisons were now to hold out on their own, and that required added protection because even the common run of barbarians who had never mastered sophisticated siege techniques were capable of using improvised rams. The wide ditches, then, were intended to impede the close approach of battering devices to the walls. These walls were also made thicker: instead of the standard 5 feet, late Roman fort walls were commonly 10 feet thick or more, as in the legionary fortresses at Strasbourg and the Constantinian fortress at Divitia (Deutz) opposite Cologne.[99] When older forts remained in use, the walls were simply thickened,[100] as in the case of the older auxiliary fort at Remagen, where the existing structure dating from the principate was reconditioned in 275.[101] In some cases, archaeological study revealed a telling progression of wall-thickening efforts over time, as in the case of a fort near the (now-flooded) Danubian gates.[102] (In Britain, however, and in some other parts of the empire, thin-walled structures remained in service, no doubt because of local considerations, from threat levels to the availability of resources.)[103]

ABANDONED LANDS OF THE FRISII

MAIN R.

LIPPE R.

NIJMEGEN
QUALBURG
DIVITIA (KÖLN-DEUTZ)
LAHN R.
KOBLENZ
ICORIGIUM (JUNKERATH)
TONGRES
BAVAY
ALZEY
ALTRIP

RHINE R.

NECKAR R.
DANUBE R.
AGRI DECUMATES

KUNZING
PASSAU
EINING (ABUSINA)
BURGLE NEAR GUNDREMMINGEN
KEMPTEN
ISNY
KELLMÜNZ
ILLER R.
BURG NEAR STEIN AM RHEIN
CONSTANZ
ARBON
ALTENBURG
ZURZACH
BASEL
SOLOTHURN
LAKE CONSTANCE

LEGEND

- - - - - FORTIFIED HIGHWAY
· · · · · RIVER FRONTIER
▬▬▬▬ LAND FRONTIER

SCALE OF MILES

0   50   100

Wide berms certainly reflected a significant tactical change. Research has shown that in the fortifications that Aurelian built around Rome and in the late Roman walls of Roman towns in Britain, Gaul, and elsewhere in the empire, the fire power of the defenders was augmented with static artillery, both stone-throwers and arrow- (or bolt-) shooters. It has been calculated that the full complement of artillery for Rome's Aurelian wall would have amounted to 762 pieces for the 381 towers.[104] But by the fourth century, the legions had lost their organic complement of artillery. Aside from the separate artillery legions mentioned in the *Notitia Dignitatum*, the artillery seems to have been used in large numbers only for fixed defenses (*tormenta muralia*).[105] Because artillery weapons positioned on towers and ramparts could not be sharply angled downward, their fire could not be directed against attackers close to the walls. The broad berms were accordingly designed to hold the attackers in an outer zone that could be covered by overlapping missile fire.[106] Under favorable conditions, the artillery could compensate for a lack of sufficient manpower, and this was an important reason to invest in artillery at a time when there was a chronic shortage of trained military manpower; a late reformer who advanced that argument went on to offer labor-saving weapons of his own design, including the formidably named *ballista fulminalis*.[107]

A rather sophisticated form of passive defense was to elevate the floor levels inside forts well above the level of the surrounding ground, in order to counter both ground-level battering rams and mining (or rather, undermining)—a technique that attackers were apt to use when they lacked siege engines and when the defense lacked the fire power needed to keep them away from the walls. Found in forts at Bavay, Alzey, and Altrip, among others,[108] this technique suggests combat conditions akin to those of medieval sieges: an offense incapable of breaching walls and a defense equally incapable of striking at the besiegers, even when they closely invested the walls. For all its antiquity, this was also a technique applied in twentieth-century British colonial police forts—in Israel some of these Tegart forts have become tourist attractions.

From the third century to the fifth, the deployment of forces evolved through several distinct phases, but it is clear that the large and strategically concentrated frontier garrisons typical of the linear strategy of the principate were thinned out, even though the overall size of the Roman army was increasing. There were more troops than before, but they were no longer deployed exclusively on the frontier line itself. Hence late Roman forts and fortresses

SECOND CENTURY

OBSERVATION (NOT FIGHTING) TOWER

SPACIOUS INTERNAL LAYOUT WITH COLONNADED STREETS

120 METERS

THIN WALLS

BERM
DITCH

BERM
DITCH

DETAIL

G - MULTIPLE GATES (UNSECURED)

NARROW PERIMETER DITCH WITH NARROW BERM

WIDE BERM AND WIDE OBSTACLE DITCH

GATE CLOSED AND TURNED INTO HIGH PROJECTING TOWER

ENFILADING FIRE

ENFILADING FIRE

FIGHTING TOWER FOR ENFILADING FIRE

WALL PROJECTED FOR ENFILADING FIRE

LATE FOURTH CENTURY

FORT RELOCATED ON DEFENSIBLE HIGH GROUND

PROJECTING FIGHTING TOWER FOR ENFILADING FIRE.

POSTERN (NARROW SLIT OPENING IN WALL)

GATE SECURED WITH OVERWATCH TOWERS AND DOUBLE COURTYARDS

Figure 3.4. The Changing Pattern of Roman Fortification

frequently housed far fewer men than their first- and second-century predecessors (the outpost forts on Hadrian's Wall being a notable exception).

What is certain is that when Roman fortifications came to serve as defensible hard points rather than as bases for counterattacks or larger-scale offensives, the lengths of the wall circuits and thus the internal areas within them were greatly reduced, often to a minimum. For example, Vindonissa, a first-century base of the legion XI Claudia, was abandoned circa 100 and subsequently dwindled into a village; circa 260 an attempt was apparently made to recondition the walls of the spacious legionary fortress, but they were much too long, and the attempt was abandoned. Finally, circa 300 a new fort, small and strong, surrounded by a broad triple ditch, was built within the old perimeter. At Abusina (now Eining) on the Danube, near the eastern terminus of the Antonine artificial limes, a small fort (37 by 48 meters) was built within the spacious perimeter of an old fort. And the evolution—or rather, shrinking—of the fort of Drobeta is an even more striking example of this secular transformation.[109]

Fighting towers, built high to enhance missile fire, located not on the wall line itself but projecting outward, are typical of fortifications meant to resist investment and siege (i.e., hard-point defenses), as opposed to lightly fortified bases for offensive forces. Accordingly, the surveillance and decorative towers of first- and second-century structures gave way in late Roman times to towers that took various shapes but almost invariably projected out from the wall, in order to allow lateral (enfilading) arrow-launching to cover the intervening wall segments.[110] Fan-shaped towers, like those at Intercisa (Dunapentele) on the Danube, and polygonal projecting towers, like those at Eburacum (York), were also built, though round and square towers were more common.[111] The Diocletianic *quadriburgium* had four square towers in a pattern that varied little from province to province,[112] which is further evidence of systematic strategic planning on an empire-wide scale.

Under the principate, the gates of towns and fortresses were only meant to impress; in late Roman conditions, however, gates became weak points that required special protection.[113] Forts manned by small garrisons that must often have failed to patrol aggressively were inherently vulnerable to surprise attacks, especially sudden seizure attempts in places where barbarians were allowed to congregate at markets in times of apparent peace. That threat generated innovations in the design of gates: double sets of guard towers (e.g., at Divitia, opposite Cologne); reentrant courtyards, where access to the fort proper was by way of a guarded internal yard (e.g., Burgle, near Gundremmingen);

had to be secured also, or else it would be exposed to attack, depredation, and even destruction during the inevitable interval between hostile penetrations and successful interceptions of the defense-in-depth sequence. The resulting conditions called for the formation of volunteer home guards and local militias; in some cases, former imperial troops may have declined into explicitly recognized part-time militias (though none are attested), and there were cases when organized groups of young volunteers (Collegia Iuventutis) seem to have manned road forts.[117] But for obvious political reasons, the imperial authorities were consistently opposed to the formation of volunteer militias for any purpose, even to serve only as fire brigades—an attitude recorded in the famous letter from Trajan to Pliny, and persisting thereafter.[118] Thus no volunteer civilian militias were organized, and local defense essentially meant local fortification, which often sufficed. Roving barbarian bands and home-grown marauders (*bagaudae*), unskilled and unequipped for siege warfare, could be kept at bay by stout walls manned by whatever stray soldiers were at hand, or by the citizenry armed with improvised weapons.[119]

Along with undefended cities, whose lack of wall circuits until the third century was evidence of both prosperity and security (for example, the ancient walls of Aquileia were demolished in the second century to accommodate the growth of the city),[120] there had always been walled cities in the empire. Indeed in the East, wall defenses were the norm, because the frontiers were open, unsecured by manned barriers. Even in the West, some cities had walls long before any were needed. In Gaul, for example, the walls of Autun were Augustan; Cologne received a wall circuit circa 50 CE, and Xanten (Vetera) circa 110, in the secure days of Trajan's principate.[121] But all those were walls built either for decorative purposes, for the sake of civic dignity, or, at most, for police purposes, to keep out thieves and robbers. They were certainly not built for military purposes, and could not cope with determined attacks.[122] Given their purposes, wall circuits naturally enclosed entire cities and not merely their more defensible parts; they were therefore long relative to their populations and correspondingly difficult to defend. Walls were generally thin, 5 feet or so in width; towers were primarily decorative; and berms and ditches, if any, were narrow.[123]

After the catastrophic invasions of the mid-third century, all this changed drastically and rapidly in many places. In northwestern Europe, in the wake of the breakdown of the Rhine defenses in 254 (when both the Alamanni and the Franks broke through the frontier), and especially after the great Alamannic

incursion of 259–260,[124] the cities of the Germanies, Raetia, and Gaul hurriedly acquired walls. These defensive walls were very different from the previous enceintes. In many cases, the enclosed areas were drastically reduced in an effort to enclose an area deemed defensible with the available military manpower: in Gaul, both Paris and Perigueux acquired walls that enclosed less than 20 acres.[125] (Some fairly large cities were walled, however, for example, Toulouse, whose 3,000 meters of walls enclosed 90 hectares.)[126] In addition, the walls became functional: thick and heavily protected. Any and all available masonry was used: in the 40-acre wall circuit of Athens, built in the wake of the Heruli attack of 267, a thickness of more than 10 feet was achieved by filling in two wall facings with broken pieces of statues, inscribed slabs, and blocks removed from former public buildings.[127]

The civic structures built in former times of prosperity and security were sometimes incorporated into the new wall perimeters as complete units: a temple at Beauvais and an amphitheater in Paris were used as part of the circuit; a forum at Bagacum (Bava) was fortified as a defensive redoubt, as were the main public baths at Sens.[128] But in some cases even the cannibalization of the city infrastructure did not suffice to protect its core. At Augst (Augusta Raurica), which had developed as an open city with "fine public buildings—forum, basilica, temple of Jupiter, theatre, baths, industrial quarters, [and] public water-supply,"[129] an attempt was made at first to protect the entire city. But after 260, in the wake of the Alamannic incursions, the city was largely abandoned. A further attempt was made to defend the highest part of the plateau on which the city was built by cutting it off with ditches from the lower slopes and turning terraces into walls with cannibalized blocks, but this failed also. By the end of the third century Augst no longer existed, and only a small river fort on the Rhine remained.

Elsewhere, relocation was more successful, but it still entailed the abandonment of large fixed investments; sometimes it reduced the civilian population to a much earlier, primitive state. Fortified hilltop villages (*oppida*) had housed the barbarians before Roman power had arrived on the scene, and similar structures now housed the Romanized provincials who had lost the amenity of their cities. In the case of Horn (near Wittnau) in Raetia, rather poignantly, a prehistoric rampart across a narrow neck of high ground was refortified in the late third century as a refuge,[130] and numerous examples of private refuges can be found in Gaul, the Germanies, Raetia, Noricum, Pannonia, and Dalmatia.[131] Where the lack of time or of suitable defensible ground precluded the relocation

of even a diminished city, extinction followed. This was particularly true in
the case of port cities such as Leptis Magna, whose seafaring inhabitants could
not leave the coast to seek refuge inland. In some cases, cities were so reduced
in size, and defenses became so elaborate, that they gradually became forts
or at least became indistinguishable from forts. In the East, garrisons had long
been housed in cities—or rather, in specific areas of cities. Now the pattern
became more general, extending from London to Chersonesus on the Black
Sea, and from Regensburg on the Rhine to Tiaret in the Sahara.[132]

Because some troops were simultaneously becoming part-time urban mili
tiamen or static farmer-soldiers, there was a regressive convergence between
civilian and military life. Cities were becoming forts, and their inhabitants,
involuntary soldiers on occasion; and forts were becoming towns inhabited by
artisan-soldiers, merchant-soldiers, and farmer-soldiers—all of these involuntary
changes were concrete expressions of the normally vacuous term "decadence."
In the case of the Limes Tripolitanus in Libya with its *centenaria*—small fort
like farmhouses (or agriculturally self-supporting fortlets?)—the mixing of
roles appears to be complete.[133]

In arid areas, concentration was imposed on rural life by the water supply,
so the conversion of rural settlements into defensible, fortified hard points pre
sented no real difficulty. On the other hand, where water was easily available,
as was the case in most of Europe, rural life was not naturally concentrated,
but rather widely diffused to best use the available agricultural land, and indeed
to create it, by clearing woods and forests and by removing stones. Local protec
tion therefore presented a problem that could not be solved economically. The
emperor might have a wall built to enclose an estate 220 kilometers square,[134]
but the ordinary farmer could not hope to enclose his fields with walls; and if
he did, he would not be able to defend them. Private landlords were in a middle
position. If rich enough, they could afford to build watchtowers to provide early
warning of attack, and they could fortify farmhouses and granaries; if they had
enough field hands, they could even organize private armies.[135]

The empire was primarily a supplier of security. Circumstances forced it to
exact a higher price for this commodity after the second century, but the price
would not have exceeded the empire's worth to its subjects had it been able to
continue to provide standards of security as high as its cost. The walled cities
and the defended farmhouses of the late empire illustrate the diminished secu
rity that was provided by a defense-in-depth, even a successful one. But in order
to measure the true societal costs of the system, we would have to count the

unknown number of small holdings in the open countryside that had to be abandoned. Cities, though walled and diminished, could survive, and so could the farmhouses and villas of determined men of substance; it was the independent small farmer and the small estate that the invasions swept away over vast tracts of the empire.

Border Troops

Under the principate, the primary frontier defense forces were the *alae* of auxiliary cavalry and the cohorts of infantry of the *auxilia*, later possibly supplemented by *numeri*, if they did indeed exist as a new and different kind of military unit (with a supposedly more ethnic character), as opposed to being merely a new designation for units of the *auxilia*.

Lower in status than the legionary infantry, and less well paid, the auxiliaries were the principal forces in the system of frontier defense. The legions could not have played a major role in the forward interceptions and minor skirmishing that characterized border warfare, since they were not agile enough for such tasks. They were designed to be relentlessly powerful, not quick on their feet. The sort of mobility that border fighting required would have been a most inefficient attribute in the legions, whose chief functions were to stabilize the borders *politically*, by virtue of their commanding presence, and to guarantee the security of their sectors against the rare contingency of large-scale enemy offensives (as well as to function as combat or even civil engineers).

Units described as legions continued to serve in the imperial army until the fifth century and even later, but from the third century onward their importance in the army as a whole steadily declined. At the same time, the *alae, cohortes,* and the more shadowy *numeri* either underwent a gradual transformation into static forces, which came to be described as "frontier men" (*limitanei*), or else disappeared altogether in places where the frontiers were utterly overrun. There is much controversy over the timing and the nature of this transformation. Denis van Berchem held that the *limitanei* were generally the former *alae* and *cohortes* in a new and more localized guise but otherwise qualitatively unchanged.[136] It was only much later, that is, in the late fourth century that they degenerated into a very part-time local militia of farmers. In so arguing, Berchem reflected the traditional view.[137]

Another specialist of the period defined the farmer-soldiers noted by the fourth-century sources not as *alares* and *cohortales* transformed and degenerated,

but rather as barbarians (*gentiles*) enrolled for local, part-time military service.[138] A leading American scholar instead embraced the degeneration thesis, that is, the transformation of increasingly static, decreasingly trained troops into increasingly full-time farmers.[139] The author of the most comprehensive history of the later empire concurred with Berchem's rejection of the early (third century) dating for the disappearance of the *alae* and cohorts but stressed the evidence from North Africa, where the militia were *gentiles*, while the static troops, that is, the *limitanei* proper (former *alares* and *cohortales*), remained full time garrison troops. He saw the *limitanei* as remaining very much full-time soldiers (as opposed to the barbarian farmer-soldiers) and presumably efficient; he noted that by law they were to receive full rations in kind until 364, and even thereafter for nine months per year, which proves, he argued, that they did not grow their own food (and drilled instead?).[140]

In the same vein, an Italian scholar who focused on North Africa argued that only in that part of the empire did the *limitanei* become peasants by the end of the third century.[141] A British specialist on Hadrian's Wall argued that the permission given to soldiers to cultivate the legionary lands and their other privileges (higher pay, gold rings, permission to form clubs, etc.) were all intended to improve recruitment and to raise morale, not evidence of decadence (or of any need to bribe the army to support the dynasty).[142] It remained for a critic of the first edition of this book to baldly and boldly deny that there ever was any transformation (let alone decadence, a prohibited term in contemporary historiography, in which "progress-challenged" might at most be tolerated). He argued that *limitanei* were merely soldiers (of *alae* and cohorts presumably) that happened to be stationed in a frontier district and thus were under the command of a *dux limitis*,[143] rejecting the entire notion of qualitatively different *limitanei*.

What is certain is that the full-time troops that had guarded the borders using mobile and offensive tactics gave way to forces that were more defensive, perhaps because they had informally become part-time peasant-soldiers who farmed their own lands and were more fit for a purely local and static defense than for offensive operations, or perhaps because of a more generic decline in combat readiness. Because the thin line of auxiliary forts and legionary fortresses along the perimeter had gradually been replaced by a much broader network of small forts in order to support an evolving strategy of defense-in-depth, the fact that mobile *alae* and *cohortes* had given way to scattered groups of less mobile, more localized troops—whether they were qualitatively different *limita-*

er or not — need not have resulted in a decline in the effectiveness of the troops themselves. This is because the new strategy required, above all, soldiers who could hold out in their positions: only if those positions were held right through an enemy offensive could a collapse of the system into an elastic defense be avoided. And men who had their own families and possessions to protect in situ should have made capable defenders.

In modern times, military-agricultural colonies have proved to be useful and economical for border defense in places and times as diverse as the Transylvania of the eighteenth century, the Volga steppe into the nineteenth (against Kazakh slaving raids), and the Israeli Negev during the decades of war and guerrilla fighting that ended in 1974. In each case, self-reliant farmer-soldiers could be counted on to respond to localized infiltrations and other low-intensity threats by acting on their own, while being ready to provide *points d'appui* for mobile field armies of regular full-time troops in the event of large-scale war. In principle, therefore, there is no reason to assume that the emergence in the Roman Empire of frontier forces consisting of farmer-soldiers reflected either local degeneration, official neglect, or a politically motivated relaxation of discipline that went so far as to require of soldiers neither discipline nor training.

Much necessarily depended on the general state of society and on the overall security situation. Much would also have depended on the quality of the supervision exercised over these farmer-soldiers, the *limitanei*. It is possible that under the tetrarchy, provincial troops (as opposed to the central field armies) came under a system of dual control, with the *limitanei* under the supervision of the provincial governor (*praeses*) and the mobile elements of each frontier province (legions and cavalry units) under the control of the *dux*, the senior military official—though both posts were sometimes filled by one man. This structure supposedly facilitated the localized supervision of frontier security and freed the *dux* from the burden of supervising immobile forces that could not, in any case, play a useful role in mobile warfare.[144] The state of the evidence is such that controversy persists over the entire notion of dual command. A priori, it would seem that separating the administration of the *limitanei* from that of the mobile cavalry *equites* and legions would be calculated to encourage the localization of the *limitanei* and the further degeneration of their military role.

As a general principle, in order to maintain the efficiency of small groups of isolated farmer-soldiers, a system of regular and detailed inspection, as well as the frequent supervision of elementary training, is essential. Soldiers must

regularly repeat fighting drills, not because they are apt to forget them, but because otherwise they will not instinctively use them in actual combat. But it seems unlikely that the officials in charge, whether civilian *praesides* or military *duces* (or even a post-Constantinian *dux limitis*, whose duties concerned frontier defenses exclusively),[145] were numerically adequate to inspect the scattered outposts of the *limitanei* regularly.

The quality of the *limitanei* was also likely to have been influenced by the quality of the full-time troops stationed in their sectors. If these were well regarded mobile forces which were always apt to be called away on campaign and were capable of fighting effectively, it is likely that some of their skills and even some of their spirit would have been transmitted to the part-time farmer soldiers in the sector. If, on the other hand, even the nominally full-time units had deteriorated into a territorial militia or simply into a static mass of pension ers unfit for serious campaigning, then the degeneration of the *limitanei* would probably have been accelerated. It is impossible to assess the quality of static border troops at different times and in different parts of the empire. Some *limitanei* may indeed have "spent most of their time on their little estates . . . and fought . . . like amateurs,"[146] and yet the particular *limitanei* so characterized successfully ensured the defense of a broad sector of Tripolitania (where no other forces were deployed) until the year 363 at least, on their own.[147]

To say that the *limitanei* were useless implies a fortiori that the fixed defenses they manned must have been useless as well; this would apply particularly to the great complex of trenches, walls, towers, and irrigation works of the Fossa tum Africae. Yet the records of imperial legislation testify to the great concern of the central authorities for the maintenance of the *fossatum* as late as 409[148]– and only powerful memories of its effectiveness can explain the fact that in 534, following the reconquest of North Africa, Justinian ordered that the ancient *fossatum* be rehabilitated and that *limitanei* be recruited and deployed once again to man the system.[149]

If one compares the part-time *limitanei* of the fourth century with the le- gionary infantry of the best days of the principate, the former may indeed ap- pear grossly inferior and almost useless. But such a comparison overlooks the fundamental change in the overall strategy of the empire, which now *required* that troops be static in order to hold fixed points in support of the mobile forces that were to maneuver between them. Training, discipline, and mobility were certainly required of the latter, while only stubborn resilience was re- quired of the former. Their endurance obviously impressed Justinian, and it

should impress us: remnants of a local defense network survived, even in much-ravaged Raetia, into the fifth century.[150]

Provincial Forces

Under the principate, all the forces of the army but for the 7,000 men of the Praetorian and Urban cohorts were "provincial" in the sense that they were ordinarily deployed for the defense of particular provinces. Those forces consisted exclusively of full-time units: the legions, *alae* of cavalry, *cohortes* of infantry, and mixed *cohortes equitatae*. There was neither a part-time border force of *limitanei* nor a regular mobile reserve, either regional or empire-wide.

By the time of Constantine in the fourth century the pattern of provincial troop deployments had been transformed: troops stationed fixedly along the borders, whether distinctive *limitanei* or not, had appeared, and the auxiliary *alae* and *cohortes* had disappeared. Units described as legions remained, but these were evidently much smaller; they were no longer deployed in single vast bases but were fragmented into permanent detachments. For example, the V Macedonica and XIII Gemina along the Danube in Dacia Ripensis and upper Moesia were divided into five and four detachments, respectively, and the division had a permanent character, each detachment coming under the command of a separate *praefectus legionis*.[151]

New types of units, cavalry *cunei* and infantry *auxilia*, had also made their appearance, both perhaps 500 strong, it has been suggested (with no hard evidence).[152] Like the border troops, the *limitanei* of whatever kind, all the other provincial forces that could be defined as *ripenses* (riversiders?), a new catchall term, came under the sector commander, the *dux limitis*, but they remained full-time regular soldiers with an intermediate status between the *limitanei* and the elite empire-wide field forces, the *comitatenses*.[153] This evolution, which was to result during the fourth century in a further stratification of the Roman armed forces, began with a series of transformations originating in the third century.

Until the deluge of the third-century invasions, the legions had been the backbone of the Roman army, and their deployment had hardly changed since the Hadrianic era. At the beginning of the third century, the II Traiana was still in Egypt; the X Fretensis and VI Ferrata still in Palestine; the III Cyrenaica was in Arabia; the old III Gallica in the new Syrian province of Phoenice; the IV Scythica and XVI Flavia Firma remained in Syria proper; the new Severan legions, I and III Parthica (and possibly IV Italica), were on the new Severan frontier in Mesopotamia; and the XV Apollinaris and XII Fulminata were in

Cappadocia. On the Danube, the I Italica and XI Claudia held lower Moesia, the IV Flavia and VII Claudia were based in upper Moesia; the V Macedonica and XIII Gemina were in Dacia; the I and II Adiutrix were in lower Pannonia, the X Gemina and XIV Gemina held upper Pannonia, while the two legions raised by Marcus Aurelius held the rest of the Danubian frontier: the II Italica in Noricum and III Italica in Raetia. The I Minervia and XXX Ulpia were in Upper Germany, and the VIII Augusta and XXII Primigenia were in Lower Germany. Britain, now divided into two provinces, had the II Augusta in superior and the XX Valeria Victrix and VI Victrix in inferior. The VII Gemina was still in Spain, and the III Augusta remained the only legion in North Africa, deployed in Numidia.

The deployment of the legions had thus changed remarkably little from the time of Hadrian: the II and III Italica had been sent after 165 to Noricum and Raetia, respectively, and the three Severan legions—I, II, and III Parthica had been added. These additions brought the number of legions to 33, or possibly 34, if the unattested IV Italica supposedly raised by Severus Alexander in 231 is counted. One of the new legions, the II Parthica, was deployed in Rome, of which more below, and the rest were, logically enough, deployed in the newly conquered province of Mesopotamia. Under Severus at least, there were new legions for new frontiers.

This, then, was the structure that was submerged by the invasions of the mid-third century. Given the multiple military disasters that ensued after the defeat and death of Decius in 251, we may presume that by then the legions had lost at least some of their legendary effectiveness. But in spite of confident verdicts,[154] there can only be tentative presumptions because there is no definite evidence on the magnitude of the threat—which may well have been greater than it was in the second century. As we have seen, the *qualitative* change in the threat had certainly been most adverse.

Of the legions of the Severan army, only the VI Ferrata of Palestine and possibly the III Parthica of Mesopotamia seem to have utterly disappeared during the half century of travails between the death of Severus Alexander in 235 and the accession of Diocletian in 284.[155] The last mention of VI Ferrata is in Dio (55.23).[156] The III Parthica is not listed in the *Notitia*, but this does not mean that it too disappeared; internal evidence suggests that its absence may have been due to a clerical error. The *Notitia* lists for the Rhine have been lost, but only one of the Rhine legions, the XXII Primigenia, is unattested in the

contingents of the field forces, unlike I Minervia (listed under *Minervii* in the *Notitia*, or.ix.37), XXX Ulpia (*Truncensimani*, occ.vii.108), and VIII Augusta (*Octaviani*, occ.vii.28). As for the XXII Primigenia, which is also absent from the *Notitia*, it is mentioned in the coins of Carausius in the tetrarchic period,[157] along with another legion not recorded in the *Notitia*, the XX Valeria Victrix. The III Augusta had a particularly agitated existence: disbanded after 238, it was reconstituted in 253 and was to endure into the fifth century.

Forty-four legions are listed in the *Notitia* as *limitanei*, that is, territorial forces, of which 29 were in the East (on the Libya–Dacia circuit) and 15 in the West; this excludes 4 detachments of legions also listed elsewhere and 4 detachments of Egyptian legions listed twice. In the eastern field army (the comitatus) recorded in the *Notitia*, there were 13 higher-grade "palatine" legions, 38 regular field legions (*comitatenses*), and 20 transferred ex-border legions (*pseudocomitatenses*); in the western field army, there were 12 palatine legions, 33 regular legions, and 28 *pseudocomitatenses*.[158] The grand total comes to 188 legions, which would be equivalent to 1,128,000 men under the old level of legionary unit manpower, an impossibly high number.

That is sufficient evidence to determine that the formations listed in the *Notitia Dignitatum* (and not only the legions) could not have been the large combat units of the principate, but were necessarily much diminished, though it is not known by how much. With scant evidence, it is the prevailing scholarly opinion that the "legions" of the late empire may have had perhaps 1,000 men in the mobile field legions and 3,000 or so in the territorial legions, but possibly even lower.[159] Moreover, these men were not the select and highly trained heavy infantry that the original legionnaires had been, and they did not have the equipment, training, or discipline to function as combat engineers—by far the most successful role of the legions of the principate.[160] Nor was artillery any longer organic. There were instead separate legions, it seems. (The implication of Ammianus Marcellinus, 19.5.2, commenting on the siege of Amida, is that normal legions were no longer trained to handle artillery.)[161] In other words, sans heavy infantry, sans combat engineering, sans artillery, those "legions" were not legions. Instead, they were essentially light infantry formations, equipped as the *auxilia* had been, with spears, bows, slings, darts, and, above all, the *spatha*, the barbarian long sword unsuited for fighting in well-drilled, close-packed formations but well suited for open-order fighting.[162] Clearly, such formations were not the qualitatively superior troops that the legionary forces of the principate had been.

This decline did not occur suddenly during the late fourth century, though most of our evidence dates from that time. The legions that survived the deluge of the third century must have done so more in form than in content. Depleted through the successive withdrawals of *vexillationes* that never returned to their parent units, weakened by breakdowns in supply and command, repeatedly overrun along with adjacent tracts of the limes (and sometimes destroyed in the process), the legions must have been drastically diminished and greatly weakened by the time of Diocletian. Additionally, many of the auxiliary units, both *alae* and *cohortes*, either disappeared or survived only as *limitanei*, that is, as purely territorial forces unsuitable for and perhaps incapable of mobile field operations.

As a result of these changes, until Diocletian reformed the legions, the strategy based on a forward defense could no longer be implemented (for it required a net tactical superiority at the local level), while a proper defense-in depth strategy could not be implemented either, because the latter required a deep, secure network of fortified outposts, self-contained strongholds, and road forts. Inevitably, the only kind of defense that could be provided during the crisis years (ca. 250–ca. 284) was an elastic defense. While it would allow the enemy to penetrate, sometimes deeply, it would at least ensure the ultimate security of the imperial power (though not of imperial *territory*) if sufficiently powerful field armies could eventually be assembled to defeat the enemy, how ever deep he had reached. This could entail fighting Alamanni before Milan and Iuthungi after they had threatened even Rome. Powerful field armies, in cluding much cavalry, were indeed assembled, and the imperial power thereby survived, but it survived only at the cost of abandoning civilian life and prop erty to the prolonged ravages of the invaders.

Diocletian was evidently not content with this: his goal was to reestablish a *territorial* defense.[163] This defense was certainly not meant to be *preclusive* that would have been far too ambitious—but it was to be at least a *shallow* defense in-depth, in which only the outer frontier zones would be ordinarily exposed to the ebbs and flows of warfare. In his attempt to attain this end, Diocletian tried to curtail the dynamics of incursion and post facto interception within imperial territory by maintaining fortified bridgeheads on the far side of the frontier; they were obviously intended to support the early interception of enemy attacks.[164]

As already noted, there were two preconditions for a successful defense-in depth strategy: first, the organization of a resilient network of fortifications

laid out in depth; and second, the deployment of sectoral or "provincial" forces sufficiently powerful to deal effectively with *local* threats. Diocletian's vast fortification-building efforts spanned the continents. "*Quid ego alarum et cohortium castra percenseam toto Rheni et Histri et Eufratae limite restituita*"—he restored the Rhine, Danube, and Euphrates borders, cried the panegyrist—while the chronicler Malalas in the sixth century retained a memory of Diocletian's fortification-building effort in the East, a line of forts from "Egypt" (Arabia?) to the Persian frontier.[165] Modern archaeology has substantiated the claims that the ancients made on Diocletian's behalf—or else to accuse him of extravagance. On three sectors, the resulting structures are of particular interest.

The fortified Strata Diocletiana, built after the Persian war, between 293 and 305 CE, reached the Euphrates from the southwest by way of Palmyra and provided a patrolled frontier between the Bostra–Damascus axis and the desert.[166] Along this road frontier, the positions of three infantry cohorts (out of five) and of two *alae* (out of seven) have been identified.[167] Because this frontier had always been an open one, with no continuous barrier whether wall or ditch, the difference between the tetrarchic scheme of frontier defense and that of the principate is not readily apparent. There was, however, a basic difference, and it concerned the relationship between the provincial forces and the limes. On the Danube, old forts and fortresses were generally rehabilitated and converted into hard-point fortifications, but in the wake of Diocletian's victories over the Sarmatians—now the main enemy on that sector—a chain of bridgehead positions was also established on the far side of the river, in Ripa Sarmatica,[168] to facilitate anticipatory attacks.

In Egypt, the scene of a major revolt circa 295 and a serious attempted usurpation circa 296, the reorganized fortifications of the Nile valley and delta provided the storehouses for the food and fodder collected by tetrarchic taxation in kind; they were protected by *alae* and cohorts.[169] Egypt retained a special role in the empire, and it also had a most peculiar long, thin geography, which meant that there could be no normal provincial perimeter, given flanks much too long to be protected. It is nevertheless significant that *alae* and cohorts were assigned to the defense of food and fodder: it was absolutely essential that supplies be denied to penetrating enemy raiders and assured for the mobile forces of the defense. Ultimately, the entire strategy of defense-in-depth rested on this logistic factor.

The second characteristic of the tetrarchic system of defense-in-depth was the new structure of forces. Aside from the border troops, frontier provinces

were defended by legions and by cavalry units styled *vexillationes*, which obvi
ously were not the original legionary detachments and seemingly had roughly
500 men each.[170] Both were permanently deployed in their assigned sectors,
but as in the past, they could also be temporarily redeployed elsewhere in whole
or in part to serve in ad hoc field armies.

Diocletian, who subordinated his entire policy to the pressing needs of im
perial defense and who turned the entire empire into a regimented logistic base,[171]
used much of the wealth extracted by ruthless taxation in kind to rehabilitate
and maintain the legionary forces. A century earlier, Septimius Severus had
already done much to ease the conditions of service in order to improve recruit
ment and raise morale. He had granted troops the right to marry (surely a case
of ex post facto recognition), raised pay for the first time since Domitian (from
300 to 450 *denarii* per year), allowed the formation of social clubs, and facili
tated promotions.[172] Diocletian followed the same policy, and organized his
fiscal system in order to supply the legions through payments in kind—though
not without also attempting to preserve the much-diminished worth of money
salaries: "Sometimes the single purchase of a soldier deprives him of his bonus
and salary" read the preamble of his celebrated if futile edict on prices.[173]

Of the 34 legions deployed until circa 231,[174] most managed to survive the
disasters of the mid-third century. As many as 35 new legions might have been
added by the time of Diocletian's abdication in 305, for a total of up to 67 or 68
legions. The minimum estimate is 56 (33 Severan legions, 6 more attested
legions by 284, 14 attested legions under Diocletian, and 3 more that are con
jectural).[175] The growth in the legionary forces was thus very great, for the
legions of Diocletian were not in most cases the diminished 1,000-man bat
talions of the late empire, because some at least continued to send detachments
to the comitatus. Whether the legionary soldier remained a heavy infantry
man and combat engineer is unclear, though the great amount of military con
struction under Diocletian suggests that he did.

The role of the legions was central to Diocletian's defense-in-depth strat
egy. While the new cavalry *vexillationes* were deployed primarily in the inte
rior, astride important roads, the legions—as before—remained concentrated
in major localities. In front of and next to them there were the *alae* and *cohortes*,
by now probably indistinguishable from one another, and neither capable of
executing offensive, forward defense tactics. It is therefore apparent that the
intention was to meet the enemy *inside* the defended zone, with mobile inter
ceptions by the cavalry *vexillationes* and with blocking positions formed by the

legions, which were still mobile enough to move astride the axes of nearby incursions.

In Augusta Libanensis, for example, the defenders of the sector fronted by the Strata Diocletiana included, in addition to 7 *alae* and 5 *cohortes* along the road itself, 2 legions and 12 *vexillationes* of cavalry (described as *equites* in the *Notitia*). The frontage held by the static border troops could obviously be penetrated by mobile enemies, hence the *equites* deployed on important routes were there to intercept the intruders in the interior, with the legions (at Palmyra and Danaba) serving as pivots and support points of the system.[176] In Palestine, 5 *vexillationes* of high-grade cavalry (*equites illyriciani*) and 4 of local cavalry (*equites indigenae*) were in similar sector-control positions, obviously constituting a mobile deployment. Here, too, the single legion held a hinge position, at Aila (near Elat), while 17 *alae* and *cohortes* in the Arava valley formed a chain of static defended points across this major theater of migration and nomadic incursion.[177]

This, then, was the basic defensive scheme under Diocletian, as it can be deduced from the *Notitia*. It is accepted that the *alae* and *cohortes*, now immobile, manned a chain of self-contained strongholds;[178] that the *equites* served as mobile forces for ready intervention; and that the legions were still concentrated to form the backbone of the defense and provide its ultimate guarantee. This defense-in-depth on a provincial scale was therefore quite shallow: the fighting was to be confined within a narrow strip of the frontier sectors, and penetrations were to be dealt with by the local forces, because no large (empirewide) field armies were ordinarily available. By containing the fighting to the narrowest band of frontier territory, the defenders would limit its ravages, and the empire would be spared the highly damaging deep incursions entailed by the earlier (and later) strategy of elastic defense.

It was seemingly under Constantine (r. 306–337) that this system gave way to another, in which powerful mobile field forces were concentrated for empirewide service, and the provincial forces were correspondingly reduced. This Constantinian deployment has been reconstructed from the *Notitia* lists for the lower Danube sectors of Scythia, Dacia Ripensis, and the two Moesias.[179] In Scythia, for example, we find two legions, a Roman and an indigenous river flotilla, and neither *alae* nor *cohortes*. Legions now provided part of the border guard; they were divided into permanent detachments, each assigned to a specified stretch of the river under a local security officer, the *praefectus ripae*.[180] Close to the food storehouses, the centerpieces of all late Roman deployments,

we find seven cavalry units listed as *cunei equitum*, and eight infantry units described as *auxilia*, both new types of combat formations.[181]

The cavalry *vexillationes* were no more, evidently having been transferred to the central field forces (or reorganized into *cunei*), and the legions were no longer deployed as concentrated striking forces. Their status had changed for the worse: in the hierarchy of forces of the mid-third century, the provincial legions were qualified as *ripenses*, holding an intermediate position between the low-status *alae* and *cohortes* and the first-class field forces, the *comitatenses*.[182] The *dux limitis* was no longer the commander of his sectoral slice of the imperial forces but only a territorial commander.[183] Because there was no increase in the overall resources of the empire, Constantine's creation of the field armies could only have resulted in a weakening of the provincial forces. There was both an attested qualitative decline (indicated by the relaxed physical standards of recruitment)[184] and most probably a numerical decline as well. Although Constantine did not strip the frontiers of their defenders, as the accusation would have it,[185] it is obvious that the provincial forces had to be diminished if the field armies were to have food, money, and, above all, men.

There was thus a transition from the shallow defense-in-depth of Diocletian's time to a deeper system based on strong field armies and rather smaller if not necessarily inferior frontier forces. In the *Notitia* we find legions designated as *pseudocomitatenses* under the control of field commanders: these units had quite obviously been transferred from the territorial to the mobile forces, the *comitatenses*, without, however, attaining the full status of field units.

The process continued after Constantine. In the *Notitia* lists for upper Moesia we find, it seems, the depiction of a post-Constantinian state of deployment: three legionary detachments were listed (drawn from IV Flavia and VII Claudia), but there were also five units of *milites exploratores* (*milites* is a generic term, like "unit"), all commanded by prefects. It seems that all eight units were remnants of the old legionary garrison.[186] Having broken all ties with their ancient mother units, the *milites*, like the "legions," were mere surveillance and scouting forces (*exploratores*), presumably acting in support of the eight *cunei* of cavalry and eight *auxilia* of infantry.[187] The *cunei* at least may have retained their cohesiveness (and therefore, their mobility) into the fifth century,[188] while the *auxilia* may have assumed the backstop role of the legionary infantry, though of necessity in a much diminished form.

A still further stage of disintegration was recorded in the *Notitia* lists for the much-ravaged middle Rhine sector,[189] where under the command of the *dux*

...*aquitanensis*, we find 11 *praefecti* in charge of units that were mostly undif-
ferentiated *milites*. One unit retained the mere memory of a legionary associa-
tion (Praefectus Militum Secundae Flaviae); another unit's name recalled a
function most probably defunct (Praefectus Militum Balistariorum). In the
last it is clear that all were to be identified primarily by the place names appended
to their titles—a symbol of the final localization of what had once been a fully
deployable army.

Central Field Armies

If it were possible to create totally mobile military forces—that is, forces with
a capacity for instant movement from place to place—then no troops would
ever have to be deployed forward at all. Instead, the entire force could be kept
as a central reserve, without concern for ready availability and without regard
for considerations of access or transit. On the other hand, if military forces are
entirely immobile, the deployment scheme must make the best of individual
unit locations in order to equalize the utility—tactical or political—of each
forward deployment; and no forces should be kept in reserve at all, since im-
mobile reserves can serve no purpose.

Not surprisingly, the strategy of imperial security that reached its culmina-
tion under Hadrian approximated the second of these two theoretical extremes.
Even if their heavy equipment were carried by pack animals or in carts, the
legions could not move any faster than a man could walk; in terms of the daily
mileage of the Roman infantry, therefore, distances within the empire were
immense. Because the frontiers did require the continuous presence of Roman
forces to deter or defeat attacks, and because the enemies of the empire could not
ordinarily coordinate their attacks, the deployment of a central reserve would
have been a wasteful form of insurance: long delays would have intervened
between the emergence of a threat and the arrival of redeployed forces. Better
to keep all units on the line and augment the defense of one sector by taking
forces from another. Forces kept in reserve would serve no purpose and would
cost as much as or more to maintain than forces in place and on duty. It is all
very well to say that the Antonine deployment pattern was that of a thinly
stretched line and to say that there was no mobile reserve "*prête à voler au secours
des points menacés.*"[190]

At the tactical level, auxiliary units and even legions could generally reach
any threatened point of a provincial frontier in a matter of days, but a central
reserve could hardly "fly"; it would have to march with agonizing slowness

SYRIA COELE

TO DURA
(ON EUPHRATES)

L

ARACHA

PALMYRA

SASSANID
THREAT

PHOENICE

RAWAG

A

A

CV

DIOCLETIANA

ENDEMIC NOMADIC RAIDING

SYRIAN

DESERT

CV

C

C

CV

DAMASCUS

LIBANENSIS

BOSTRENSIS

LEGEND

LEGION

CAVALRY VEXILLATION

ALA

TO BOSTRA

TO

MINORS

INTERPROVINCIAL HIGHWAY

MILITARY HIGHWAY AND PATROL
ROAD. STRATA DIOCLETIANA.

ANTIOCH

EUPHRATES

CYPRUS

EMESA

PALMYRA

AUGUSTA
LIBANENSIS

PHOENICE

DAMASCUS

MEDITERRANEAN

BOSTRA

JERUSALEM

0   100   200
MILES

AILA

RED SEA

Map 3.4. Defense-in-Depth: Augusta
Libanensis (Only Attested Units Shown)

over 1,000 miles or more to arrive at, say, the central Rhine sector from a central deployment point like Rome. There is, nevertheless, one possible motive for the deployment of a centralized reserve even in a very low mobility environment: the protection of the central power itself. What might have been inefficient from the empire-wide point of view could have been very functional indeed for its ruler. Under the principate there was no central field force; there were only palace guards, private bodyguards, officer cadets in the retinue, and the like: Augustus had his picked men (*evocati*) and his Batavian slave guards.[191] Later, *speculatores* (selected centurions) also appeared in the emperor's retinue, and around the time of Domitian we find the *equites singulares*, a mounted force of perhaps 1,000 men.[192] By the later third century the retinue came to include the *protectores*, seemingly a combined elite guard force and officer nursery.[193] By 330 we find the *scholae*, an elite mounted force commanded, significantly, by the emperor himself rather than by the senior field officers (*magistri militum*), who controlled all the other central forces. They came under the master of offices, but he was only their administrator, not their operational commander.[194] In the *Notitia*, five units of *scholae* are listed in the West and seven in the East, generally held to be of 500 men each, based on no evidence to speak of.[195]

In regard to such guards there was a recurrent phenomenon: private bodyguards—tough and rough goons—tended to evolve into well-dressed palace guards with official status, and they in turn tended to degenerate into ornamental palace guards unfit for any form of combat, or even bodyguarding. Another familiar pattern of evolution—from palace guard to elite force to enlarged field formation—never developed in Rome, even though the Praetorian cohorts were from the beginning a much more substantial force than any bodyguard unit could be. Formed in 27 BCE at the very beginning of the principate,[196] the Praetorians were a privileged force receiving double the legionary salary, or 450 *denarii* per year.[197] In his survey of the imperial forces, Tacitus (*Annals*, 4.5) listed 9 Praetorian cohorts ("*novem praetoriae cohortes*"), but their number had increased to 12 by 47 CE.[198] One of the unsuccessful contenders of 69 CE—the year of the four emperors—Vitellius further increased the number of Praetorian cohorts to 16, but Vespasian reduced it again to 9. Finally, by 101 CE their number was increased once more to 10, resulting in a force of some 5,000 troops, elite at least in status.[199]

In addition to the Praetorian cohorts there were also the Urban cohorts, always four in number and each 500 strong, and the *vigiles*, 3,500 strong by the end of the second century. But the latter were freedmen who served as firemen

and street policemen, and they cannot be counted as soldiers.[200] Excluding the *vigiles*, there were thus a maximum of 8,000 men in organized units available as a central force. This was more than adequate to serve as a retinue to the emperor, but it certainly did not amount to a significant field force.

Even though there was a good deal of elasticity in the second-century system, it could not provide field armies for demanding campaigns. Hence, new legions had to be raised for major wars. Domitian raised the I Minervia for his war with the Chatti in 83, and Trajan had to raise the II Traiana and XXX Ulpia for his conquests. Antoninus Pius managed his not inconsiderable wars with expeditionary corps of auxiliary forces, but Marcus Aurelius was forced to form new legions (the II and III Italica) to fight his northern wars.[201] Beginning in 193, Septimius Severus fought a civil war of major proportions, and then almost immediately afterward, he began his Parthian War. Like his predecessors, he did so with an ad hoc field army of legionary *vexillationes* and auxiliaries, but he found, as his predecessors had, that this was not enough: by 196 CE three new legions, the I, II, and III Parthica, were raised.[202] No emperor since Augustus had raised as many.

Then came the major innovation: although the I and III Parthica were duly posted on the newly conquered Mesopotamian frontier, in line with previous practice, the II Parthica was not. Instead, it was installed near Rome at Albanum, becoming the first legion to be regularly stationed anywhere in Italy since the inception of the principate. This, and the fact that all three Severan legions were placed under commanders of the equestrian class (*praefecti*) rather than of the senatorial class (*legati*), has suggested to both ancient and modern historians that the motive for the deployment of the II Parthica was internal and political rather than external and military.[203] This may have been so, but it is equally evident that the II Parthica could also have served as the nucleus of a central field army. The new legion on its own was already a substantial force, more so than the total establishment of pre-Severan Praetorians, Urban cohorts, and *equites singulares*. But Severus increased substantially these forces: each Praetorian cohort was doubled in size to 1,000 men, for a total of 10,000; the Urban cohorts were tripled to 1,500 men each, for a total of 6,000; and even the number of *vigiles* was doubled to 7,000. Only the number of the *equites singulares* failed to increase.[204] There were, in addition, some troops, especially cavalry, attached to the obscure Castra Peregrina, a place where centurions sent on missions to Rome from all parts of the empire would lodge, and presumably (there is no evidence) exchange tactical and threat information—a facility still

a very long way from an imperial general headquarters, but not useless as an expertise exchange.[205]

It is unfortunate that no coherent picture of the subsequent employment of these forces can be gleaned from the inadequate sources, but it is certain that out of the 30,000 men now permanently available in Rome and free of frontier defense duties, a substantial central reserve could be extracted for actual campaigning, perhaps as many as 23,000 men—the equivalent of almost four legions, and thus something of a "halfway house" or at least an intermediate stop on the way to the large field armies of Diocletian and Constantine.[206] This was certainly an operationally significant force: Marcus Aurelius took three legions with him to fight Parthia, and their absence from the frontiers may have triggered the dangerous northern wars of his reign.

It is in the most difficult years of the third century, under Gallienus (r. 253 268), that we hear of a new central reserve, or rather, regional field reserves. These were cavalry forces deployed on major road axes, such as Aquileia (most important, because it controlled the major eastern gateway into Italy); Sirmium for the mid-Danube sector; Poetovio in the Drava valley; and Lychnidus on the major highway into Greece from the north.[207] On the basis of the scattered evidence, some have seen the emergence of a new strategic variant: a defense in-depth so deep that it was virtually an elastic defense, in which nothing but the Italian core was securely held.[208] But others disagree.[209]

The wholly mobile cavalry army which appears in our sources, constituted by Gallienus or at least increased by him, was a drastic innovation, or an emergency response that could only have been prompted by severe insecurity: a vast empire cannot be so defended, nor can an entire army of cavalry be assembled without depleting the entire military apparatus of horses everywhere. Aureolus served for 10 years as its commander, fighting loyally against both internal and external enemies before finally turning against Gallienus in 268; the usurpation failed, but Gallienus was assassinated while besieging Milan, where the defeated Aureolus was seeking refuge. Significantly, his designated successor was another cavalry commander, Claudius, who was to rule for two years (268–270), supposedly winning great victories. Claudius was succeeded by a much more successful cavalry commander, Aurelian, who ruled until his murder in 275. Clearly, the existence of a mobile corps of cavalry unattached to any fixed position had great political significance: if its commander was not already the emperor, he could become the emperor, because there was no comparable force that could effectively attack a large, centralized cavalry corps.

Very little is known of the composition of this cavalry. It included units of *promoti* (which may have been a survival of the old 120-horse legionary cavalry contingents),[210] as well as units of native cavalry (*equites Dalmatae* and *equites Mauri*) and possibly some heavy cavalry (*scutarii*).[211] It is also possible that under Gallienus the legions were given new cavalry contingents of 726 men in place of the original 120.[212] It was at this time that the term *vexillatio* underwent a change of meaning: it appeared in 269 with its original meaning of a legionary *infantry* detachment, but by 293 it implied a cavalry unit.[213] The term must have initially connoted a mobile field unit par excellence, and it is easy to see the transformation taking place as the importance of the cavalry increased. In the celebrations of the tenth year of Gallienus's rule the new importance of the cavalry was given formal recognition: in the ritual hierarchy of the procession, it was given the same status as the Praetorian Guard.[214]

The cavalry could double the strategic mobility of Roman expeditionary forces when moving overland (as much as 50 miles per day against 10–15), but this strategic advantage entailed a tactical disadvantage: when the Roman soldier became a cavalryman he could retain no trace of his former tactical superiority. Roman cavalry fought the barbarians without the inherent advantage enjoyed by even a decadent legionary force. Perhaps it is for this reason that the writings of the nostalgic Vegetius were hostile to the cavalry, arguing that the infantry was cheaper, more versatile, and more appropriate as a vehicle of the legionary traditions.[215]

The history of the Roman cavalry records the consistent success of large bodies of light cavalry armed with missile weapons and the equally consistent failure of the heavy cavalry equipped with shock weapons—the *contus* or *kontos*, a heavy thrusting lance meant for the charge. Nevertheless, under Trajan a military unit of heavy lancers (Ala I Ulpia Contariorum Miliaria) had already appeared; and even earlier, Josephus had described (*The Jewish War*, III.5.5) a weapon of Vespasian's cavalry in Judea (ca. 68) as a *kontos*.[216] This cavalry, however, had no body armor—it was deemed "heavy" because it could serve as a charging shock force, as opposed to the light cavalry. But a first unit of *armored* cavalry appeared in Hadrian's time as the Ala I Gallorum et Pannoniorum catafractata, a designation that describes cavalry protected with chain mail, steel, leather, and some rigid armor.[217] Such heavy cavalry had been the leading force of the Parthians, and it was also the leading force of the Sassanid armies. But they also had some heavy cavalry that was fully protected with rigid armor, whose horses were partly armored as well, in the manner made familiar by

depictions of late medieval knights engaged in tournaments or even in combat—a risky proposition with heavy armor, which precluded remounting. Roman troops nicknamed such fully armored cavalrymen *clibanarii* (bread-ovenners?), and they certainly could not have had an easy time of it in the heat of the Syrian desert.

Late in 271, Aurelian sailed east to destroy the power of Palmyra with a force of legionary detachments, Praetorian cohorts, and above all, light cavalry of Moorish and Dalmatian origin.[218] First by the Orontes River and then at Emesa, Aurelian soundly defeated the Palmyran forces, using the same tactic on both occasions: the light and unencumbered native horse retreated and the enemy *clibanarii* pursued—until they were exhausted. Then the real fighting began. Later, when Persian forces intervened to take the Romans besieging Palmyra in the flank, they were defeated in turn with the same tactics. In spite of this ample demonstration of the superiority of light cavalry over armored horsemen—so long as the light horsemen were properly supported by sturdy infantry—units of *clibanarii* began to appear in the Roman army: nine were listed in the *Notitia Dignitatum*, including a unit described as *equites sagittarii clibanarii* (i.e., armored mounted archers)—most likely a decorative but ineffectual combination of light weaponry and heavy armor. The combat record of this armored cavalry was dismal.[219]

There was no room for an unattached cavalry corps in Diocletian's scheme of a shallow defense-in-depth. Strategically, it had been the natural instrument of an elastic defense, while on the political level its very existence was destabilizing. But Diocletian did not need to dissolve the cavalry corps, for it had probably already disappeared.[220] It remains uncertain whether the Moorish and Dalmatian *equites* were disbanded by Aurelian after his victory over Palmyra in order to garrison the disorganized eastern frontiers instead—or whether Diocletian himself disbanded them. There were certainly many *equites* in the *Notitia* for Palestine, indeed 12 *equites*, while the much vaster Arabia had 8, Phoenice also had 12, Syria 10, Osrhoene 9, and Mesopotamia also 9.[221] In addition, the *promoti* may have been attached to the legions once again, though the link may have been only administrative.[222] It is noteworthy that in the *Notitia* lists for the eastern frontiers there was no numerical correlation between the number of legions and the number of *equites promoti*.[223]

The question of the deployment of the cavalry under Diocletian is directly connected to a broader, more important, and much more controversial issue:

the deployment of a field army as such. The orthodox view has been that Diocletian and his colleagues created or expanded the *sacer comitatus* (the field escort of the emperors), replacing the improvised field forces of their predecessors with standing field armies, and creating the dual structure of static border troops (*limitanei*) and mobile field forces (*comitatenses*) that characterized the army of the late empire. According to this interpretation of the evidence, Constantine merely perfected the change a generation later by adding a command structure.[224] The *sacer comitatus* would thus have amounted to a major field force, even a field army, certainly much more than a bodyguard, because of its sheer size; also it was not uniform in composition, as the old Praetorian cohorts had been. It included the latter, whose number was, however, reduced,[225] and also *lanciarii*, which were elite infantry selected from the legions, a much-debated category of forces. Some have argued that the *lanciarii* were assigned to frontier sectors under Diocletian, and thus were not part of the comitatus at all. Van Berchem held that they were,[226] but also that they were few in number. In the *Notitia*, however, there were several legions of *lanciarii*; on that basis, some scholars view them as an important part of the comitatus.[227] Finally, there were the cavalry units (*comites*); the prestigious Moorish light cavalry; select new legions (Ioviani and Herculiani); and possibly cavalry *promoti*.[228]

In the other, less traditional view, which was advanced earlier and then rejected,[229] the argument was that the *sacer comitatus* was nothing more than the traditional escort of the emperors and not a field army or even the nucleus of one. It was held that Diocletian had expanded the army, doubling it in size, but it was Constantine who had removed large numbers of troops from the frontier sectors to form his central field force of *comitatenses*. Restated in a monograph of considerable authority by Denis van Berchem, which has been criticized but also authoritatively accepted, at least in great part, this view now seems persuasive. The controversy over the authorship of the reform is still unresolved, however, for subordinate but important questions remain.[230] There is no doubt, however, that it was Constantine who created the new commands of the standing field army, the *magister peditum* of the infantry and the *magister equitum* of the cavalry.[231]

In any event, by the first decades of the fourth century the dual army structure was in existence, with *limitanei* and provincial troops on the border under the control of sector commanders (*duces*), and centralized field forces under the emperor and his *magistri*. The subsequent evolution of the dual army structure

was predictable. In the *Notitia*, there were 48 legions listed as *pseudocomitatenses*, indicating that they were transferred into the field army after having served as provincial forces.[232]

When Constantine formed, or at least enlarged, his field army, he did raise some new units, including the auxilia,[233] but he must also have considerably weakened the provincial forces in order to augment his field forces. This transfer of troops from the frontiers to the cities was criticized by the fifth-century historian Zosimus (*Historia Nova*, 2.34), no doubt because of his vehement anti-Christian sentiments. It is probable that during the late fourth century the *comitatenses* grew steadily in size at the expense of the provincial forces (now all called *limitanei*), whose relative status and privileges continued to decline.[234]

Conclusion

When the provincial forces that guarded the frontiers were reduced to strengthen the central field armies, the result was to provide added political and military security for the imperial power—and thus for the empire itself but inevitably this improvement came at the expense of the day-to-day security of the common people living in provincial territories exposed to incursions, and not just border areas. As the relative strength of the imperial system declined (either because of a rising total threat, or because of its own weaknesses, or any combination thereof) in the very late stage of this devolution, at least in the western half of the empire, the frontiers could be stripped wholesale of their remaining garrisons in order to augment the central field forces; this happened in 406 under Stilicho, who was engaged in internal warfare.[235] In such cases, the frontier was seemingly left to be "defended" by barbarian alliances,[236] hollow and reversed versions of the client relationships of the first century. Such alliances were rented, not bought; nor could inducements provide much security once the indispensable element of deterrence was gone.

The lists of the *Notitia Dignitatum*, whatever their exact date, give some notion of the distribution of forces between the frontier sectors and the field armies, and several attempts have been made to quantify the distribution on the basis of varying estimates of unit sizes.[237] (See table 3.1.) It follows that estimates for the total size of the Roman armed forces at the time of the *Notitia* also vary widely, from under 400,000 to 650,000, although the mobile field army is consistently estimated at around 200,000.

Those estimates, which also reflect, inter alia, different datings of the *Notitia*, have one thing in common: in each case the percentage of *limitanei* was

Distribution of Troops: Frontiers and Field Armies in the East and West

	Number of troops				
	(1)	(2)	(3)	(4)	(5)
comitatus	—	111,000	113,000	123,800	94,000
comitatus	—	94,500	104,000	96,300	79,000
comitatenses	194,500	205,500	217,000	220,100	173,000
limitanei	—	200,000	135,000	138,000	122,000/130,000
limitanei	—	332,000	248,000	165,700	201,500
limitanei	360,000	532,000	383,000	303,700	323,500/331,500
Western	—	311,000	248,000	261,800	226,000/224,000
Eastern	—	426,500	352,000	262,000	280,500
...age of *limitanei* in West	—	64%	54%	47%	56–58%
...age of *limitanei* in East	—	78%	70%	63%	72%
troops, East and West	554,500	737,500	600,000	523,800	496,500/504,500
...age of *limitanei* in total	65%	72%	64%	58%	65%

(1) Mommsen, "Das römische Militärwesen seit Diocletian," *Hermes* 24 (1889): 263, cited in ... nte, "*Notitia Dignitatum*," p. 156, n. 71; (2) Nischer, "Army Reforms of Diocletian and Constantine," ... (3) Jones, *Later Roman Empire*, pp. 3:379–80, table 15; (4) Várady, "New Evidence on Some ... ...," p. 360; (5) Szilágyi, "Les Variations des centres de prépondérance militaire," p. 217.

...substantially higher in the East, which not coincidentally survived the fifth-century crisis, than in the West, which did not. The implication is obvious, and endorses the argument here advanced as to the limited strategic value of central reserve forces in a low-mobility environment. The fact that the enemies of the empire could not have been significantly more mobile is irrelevant. Because the external threat was uncoordinated, *relative* mobility was unimportant. What mattered was the *absolute* mobility of Roman forces deployed in the rear, which was much too low to justify the dual system militarily; it was only as a political instrument for the emperor that it was certainly advantageous.

Septimius Severus commanded his armies against both internal and external enemies in both the East and West once he became emperor, even though he had no experience of active duty until he came to power. Again the implication is clear: "The example of Severus became a rule to which there could be no exceptions. The emperor must command his armies in the field, whatever his age or his personal inclinations—and if he was unsuccessful, a better general would take his place."[238] The field armies of the later empire were much larger than those of the principate, but even when distributed in regional reserves the *comitatenses* could not hope to have adequate strategic mobility to defend

imperial territory preclusively: enemies could be intercepted and often defeated, but only after they had penetrated imperial territory and done their worst. On the other hand, the centralized field armies could ensure the power of the soldier-emperors who controlled them, and this was the one task that central field armies continued to perform effectively until the very end.

But the damage inflicted upon imperial territories, private lives, and private property was cumulative. It relentlessly eroded the logistic base of the empire and relentlessly diminished the net value of the imperial structure to its tax paying subjects.

Epilogue

The Three Systems: An Evaluation

From the Constantinian version of defense-in-depth, with its dual structure of border troops and central field units, the stratification of the imperial army predictably evolved further. By the later fourth century, we find new units, styled as *palatini* (palace troops), serving as the core of the central field forces, under the direct command of the emperors of the East and West.[1] The *comitatenses* had become lower-status regional field armies, while the *limitanei* had sunk still lower in relative status. It may safely be assumed that this evolution caused a further reduction in the quality and quantity of the human and material resources available for territorial defense, both local and regional. Other things being equal, it must have entailed a further decline in territorial security, for rural populations and the rural economy especially, with all the logistic and societal consequences, manifest in the increasing weakness of the empire.

A triple deployment in depth would of course have been much more resilient than any linear deployment, but this "resilience" could merely mean that the central power could thereby survive for another season of tax gathering from a population now constantly exposed to the violence of endemic warfare and the ravages of unopposed barbarian incursions. Finally, the situation so deteriorated that in the fifth century an ordinary citizen of the empire, a merchant from Viminacium, preferred life outside the empire, finding a desirable new home among a people no gentler than the Huns, in the very camp of Attila.[2]

Three systems of imperial security were described above. First was the system here called Julio-Claudian, but more properly perhaps thought of as the system of the republican empire. Around its core areas the empire was hegemonic in nature, with client states autonomously responsible for implementing Roman desiderata and providing out of their own resources, and through their obedience, for the territorial security of the core areas. No Roman troops were ordinarily deployed in the client states or with client tribes, but the stability of the system required a constant diplomatic effort, both to ensure that each client

ruler was continually aware of the totality of Roman power (in contrast to his own political isolation) and to maintain both the internal dynastic and regional (i.e., interclient) equilibrium of the overall structure of client relationships. Client states great and small were thus kept in subjection by their own perception of Roman power, and this deterrent force was complemented by positive inducements, including Roman payments, titles, and honors.

Under this system, the armed forces that the clients perceived as an undivided force of overwhelming strength were actually distributed in a vast perimeter around Rome. Because they were concentrated in multilegion armies, and not committed to territorial defense, they were inherently mobile and freely redeployable. The flexibility of the force structure was such that almost half the army could be sent to a single rebellious province (e.g., Illyricum in 6–9 CE). Of course, the full exercise of this flexibility could be dangerous: the revolt in Illyricum was most likely triggered by the removal of forces for the invasion of Germany, which the revolt aborted. In any case, in the absence of such rebellions, this flexibility generated vast disposable military strength, which could be used for further expansion where the front remained open, as in Germany before the year 9 or for the conquest of Britain under Claudius.

Owing to its hegemonic nature, the sphere of imperial control had no fixed boundaries and was limited only by the range at which others perceived Roman power as still powerful enough to compel obedience. The reach of Roman power therefore did not require proportional expenditures. Nor did further extensions of the empire in that hegemonic mode require increases in its total military force. New clients added to the empire would respond to the same compulsion as all the clients brought within the sphere of imperial control before them. That was the key to the economy of force of the Julio-Claudian system and the secret of its efficiency. This system, however, could only assure Roman control; it could not provide day-to-day security for the entirety of the imperial territory and its populations, least of all in peripheral areas.

The Antonine system, in use in one form or another from the Flavian era after the year 69 to the crisis of the mid-third century—with leads and lags of course—reflected the territorialization of the empire and a drastic reorientation of imperial priorities. Armed forces were everywhere deployed to secure the tranquility and, therefore, the prosperity of all imperial territory, including its most contested border lands. With that, the effective power of the empire became strictly proportional to its military strength, because this strength was largely used directly to provide security, and not as a tool of political persuasion.

There were still clients, but they were much less useful than in the past, because the task of maintaining territorial security was shifted from them to widely distributed frontier forces. Meanwhile strong clients could no longer be tolerated at all, because their strength could dangerously exceed that of the adjacent imperial forces.

Nevertheless, the empire remained strong, and not the least of its strength was political. Increasing prosperity and voluntary Romanization were eliminating the last vestiges of nativistic disaffection and creating a strong base of support for the imperial regime, which offered security and stability. Facing enemies widely separated from one another at the periphery, the empire could still send overwhelmingly powerful forces against them, because the tranquility of the provinces—and, in places, elaborate border defense infrastructures—allowed peace to be temporarily maintained even with much-depleted frontier forces. This residual offensive capability was primarily useful as a diplomatic instrument, its latent threat serving to keep the neighbors of the empire divided—if not necessarily obedient.

But there was a dangerous process at work: the cultural and economic influence of the empire on the lives of all its neighbors was itself creating a political basis for joint action against it. Enemies of Rome who before had nothing in common came to acquire elements of the same Roman frontier culture that was shared by all precisely because it belonged to none: the culture of self-Romanization. That in turn increased the ability of different tribal or other groups to communicate with one another, opening opportunities for cooperation, even fusion. Beyond the Rhine, the confederation of border peoples that would turn them into formidable multitribal agglomerations was under way. Opposed by the relentless force of cultural transformation, Roman diplomacy became less and less effective in keeping the enemies of the empire divided. And the system of perimeter defense, keyed to low-intensity threats, could not adequately contend with their unity.

The third system of imperial security arose in response to this intractable combination of diplomatic and military threats, whose consequences became manifest in the great crisis of the third century. Under Diocletian, a still shallow and structured defense-in-depth replaced the emergency response of the elastic defense of Gallienus and of the previous generation, in which ad hoc field armies had fought agglomerations of barbarians deep within imperial territory. The new system provided no disposable surplus of military power either for offensive use or for diplomatic coercion, whether deterrent or compellent.

That had been true of the preclusive defense strategy also, but the difference was that the third system no longer had a surge capability either, because the enemies of the empire were no longer kept on the defensive by offensive, forward defense operations; instead, they were only contained. And when containment forces were reduced to muster ad hoc field forces, penetrations occurred, and the previous capacity to generate images of power for the purpose of political persuasion was much reduced. It follows that diplomatic relation ships with external powers increasingly reflected local balances of forces—which did not always favor the empire on every sector of the perimeter.

With that, the level of security that the empire could provide became directly proportional to the human and material resources supplied to the army, or made available to construct frontier fortifications and defensive infrastructures, notably fortified granaries. The economy of force that had made the Julio Claudian empire such an efficient provider of security was therefore lost. From then on, the empire merely enjoyed modest economies-of-scale advantages, which were not large enough to compensate for much administrative ineffi ciency, internal strife, and bureaucratic venality. And because inefficiency, strife, and venality could not be sufficiently contained, the empire was losing its value to its subjects: it still demanded large tax payments but offered less and less security. In the end, as the empire's ability to extract taxes persistently exceeded its ability to protect its subjects and their property, the arrival of the barbarians could even become some sort of solution.

Once the empire was no longer sustained by the logic of collective security, it could only endure because of the unsustainable will of its rulers, and by men's waning fear of the unknown.

Appendix
Power and Force: Definitions and Implications

Military power is normally defined, in functional terms, more or less as "the ability of states to affect the will and behavior of other states by armed coercion or the threat of armed coercion."[1] Such a definition clearly does not allow for any meaningful differentiation between power and force; indeed the quoted author immediately adds, "It [military power] is equivalent to 'force,' broadly defined."[2] It is apparent that the "power" manifest in the Roman security systems under consideration, as indeed in almost all other conceivable security systems, is a phenomenon much broader than force, even if force is "broadly defined."

Power itself, power *tout court* (but always as a relation rather than a unit of measurement), has been the subject of countless definitions,[3] including some so general as to define very little indeed (e.g., "man's control over the minds and actions of other men," in a popular textbook).[4] One modern definition analyzes the power relation in its components, treating power in action as a dynamic, manipulative relationship, of which power *tout court* is an instrumentality that includes diverse elements in a continuum from positive incentives to coercion.[5] In this fuller definition, voluntary compliance is attributed to "authority," while the absence of coercion or the threat thereof in nonvoluntary compliance is said to reveal the working of "influence."[6]

Other modern definitions deliberately combine the notions of power and influence, treating both as actor-directed relationships,[7] whose nature can be viewed in terms of "intuitive notions very similar to those on which the idea of force rests in mechanics"[8]—Newtonian mechanics, that is. Not surprisingly, less formal definitions obscure entirely any distinction between power and force,[9] beginning (and sometimes ending) with a phrase such as "power is the ability to force."

Now these definitions may be adequate for a variety of analytical purposes, but not for our own. In seeking to evaluate the efficiency of the three systems of imperial security, it should be noted first that in these, as in all comparable systems of security both ancient and modern, "power" as an aggregate of external action capabilities is the overall "output" of the system. (The output is power rather than security because the latter depends also on the level of the threat, a variable external to the system.) Next, we observe that the efficiency

of such systems is defined by the relationship between the power generated (output) and the costs to society of operating the system (input).[10] These are both the direct costs of force deployments, military infrastructures, and subsidization, and the hidden costs that may be imputed to methods of discretionary defense (i.e., defense-in-depth and elastic defense), in which damage is inflicted on the society by enemy action that goes temporarily unopposed for strategic (i.e., systemic) reasons.

All else being equal, the efficiency of such systems must be inversely proportional to the degree of reliance on force, since the force generated will require a proportional input of human and material resources. In fact, the efficiency of the systems will reflect their "economy of force."

It follows that while in a static perspective, force is indeed a constituent of power, in dynamic terms force and power are not analogous at all, but they are rather, in a sense, opposites. One is an input and the other an output, and efficiency requires the minimization of the former and the maximization of the latter. Evidently we cannot rely on definitions that nullify the difference (in dynamic terms) between force and power, and must provide our own definitions instead.

Of course, the definition of force is by far the simpler. We know how force is constituted: in direct proportion to the quantity and quality of the inputs, whether these are legionary troops or armored divisions, auxiliary cavalry or helicopter squadrons—or, at a different level of analysis, men and foodstuffs, or equipment and fuel. We know how force works: by direct application on the field of battle, or in active (noncombat) deployments. It is true that force also works indirectly (i.e., politically) since its mere presence—if recognized—may deter or compel. But the indirect suasion of force,[11] though undoubtedly a political rather than a physical phenomenon, occurs only in the narrowest tactical dimension.

Accordingly, while bearing in mind this qualification, we may treat force in operation as essentially analogous to a physical phenomenon, genuinely comparable to the concept of force in Newtonian mechanics. Both are consumed in application; both wane over distance to a degree that is dependent on the means of conveyance or the medium of transmission; both are characterized by perfect proportionality between qualitatively equal units. In other words, military force is indeed governed by constraints on accumulation, use, transmission, and dispersion akin to the physical laws that condition mechanical force.

How does power work? Very differently. First, it works not by causing effects directly, but by eliciting responses—if all goes well, the *desired* responses.

The powerful issue an order, and those subject to their power obey. But in obeying, the latter are not the passive objects of the power relation (as are the objects of force). They are the *actors*, since those who obey carry out the required actions themselves.

The powerful, who merely issue the order, only have a static attribute, that is, "power"; it is the actor-objects of this power who supply the dynamic energy through their obedience.[12] It follows immediately that the physical constraints, which impose a proportional relationship between the amount of force applied (and consumed in the process) and the results obtained, does *not* apply to the power relation. One, two, or a thousand prisoners of war who walk to their place of internment in response to an order that they choose to obey do not *consume* the power to which their obedience is a response. In contrast, the physical removal of 50 demonstrators requires much less force than the removal of 50,000. In the latter case there is a rigid proportionality between the force inputs and the output; in the former there is no such proportionality.

All this merely describes the power relation without explaining it. Next we must ask why some men obey others, or, in other words, what the processes are whereby desired responses can be elicited in the minds of men, causing them to act in the manner required of them. Clearly, the actor-objects of the power relation *decide* to obey; if we assume that they are rational,[13] their obedience or lack of it must reflect a comparison between the costs and benefits of obedience versus those of defiance. (This comparison may have been internalized into a mental habit, with obedience reflexive rather than deliberate. Such apparently instinctual processes merely reflect the ingrained results of *prior* comparisons of costs and benefits.) At this point it would seem that power is easily defined as the ability to control the flows of costs and benefits to others, with force being merely a subordinate ability to impose a particular kind of cost through coercion or destruction. If this were indeed so, then our analysis would have fruitlessly returned to its starting point,[14] and the differentiation here being pursued between power and force would have to be abandoned. For it would appear that the ability to control costs and benefits must be subject to the same limiting proportionality between inputs and outputs as the ability to apply force (or force *tout court*).

But this is not so. The ability to elicit desired responses through the decisions of the actor-objects of the power relation is plainly *not* a function of the ability to control costs and benefits, but rather a function of the *perceived* ability to do so. In other words, the first stage of the power process is perceptual, and

power is therefore initially a subjective phenomenon; it can only function through the medium of others' perceptions.

If power is in the first instance a perceptual process, then distance will not diminish it unless the means of perception are correspondingly degraded over the distance. A remote eastern client kingdom would normally be much closer to Roman realities in perceptual terms than would the peoples beyond the Elbe, for in the East a Hellenistic civilization predisposed men to understand the meaning of imperial power, while no such cultural basis was to be found beyond the Elbe. It is true that repeated punitive actions (as well as positive inducements) could teach even the most primitive of men the meaning of Roman power, but in that case the "power" so validated would be a different sort of phenomenon: crucially, there *would* be a proportionality between inputs and outputs, at least as long as the process of education continued.

Perceived power does not diminish with distance, for it is not a physical (or quasi-physical) phenomenon. For the same reason, perceived power is not consumed by use. One client king or ten can perceive the same undivided power in the empire and can be influenced by it. Nor is the quantum of this power diminished when the obedience of a further dozen client kings is secured—by their own perception of this same power. Indeed, perception is one of a very few human activities (*pace* the romantics, love is another) that does not consume its objects, even imperceptibly. By contrast, force applied on one sector to impose tranquility on one restless tribe is unavailable for simultaneous use against another, and any increase in the number of targets diminishes the amount of force that can be used against each. It is for this reason that the efficiency of systems of imperial security must depend on their economy of force. Or, to put it differently, their efficiency depends on the degree to which force is maintained as an inactive component of perceived power rather than used directly.

If one excludes for the moment consideration of all other components of power—that is, static, perceived power—it may seem that once again the difference between the workings of power and those of force is inconsequential, for it is clear that in virtually all conceivable circumstances deployed military force will be the central ingredient of the overall power of states. Accordingly, it would appear that it hardly matters whether security is obtained by the static deployment of force as *perceived* power or by its direct use. Not so. Even if one does not take into account the actual wear and tear that force must suffer when actually used (casualties and matériel losses), force as power is inherently

much more economical than force used directly, since it does not require proportionate inputs.

For example, a given perimeter may be secured by means of an active defense (in which case the forces deployed must suffice to defeat *all* threats on every segment of the perimeter) or else it may be secured by deterrence, for which one need only deploy a punitive striking force capable of inflicting greater damage on the potential attackers than the gains the latter may hope to make by attacking in the first place. Inevitably, an active defense requires altogether greater force than does deterrence, for which credible retaliatory capabilities will suffice—assuming that one's opponents are rational *and* make predictable relative-value judgments.[15] In the first instance, security requires the protection of every single asset vulnerable to attack; in the second, it requires merely the *recognized* ability to destroy selected enemy assets and inflict unacceptable levels of damage. Still, it must be pointed out that there is a qualitative difference between the security provided by deterrence and that provided by an active defense. The former, being the result of suasion, is subject to all the vagaries inherent in human perceptions and human decisions; the latter, being physical, is definitive. Prudent men may well choose to pay the greater costs of an active defense for the sake of its reliability, which is independent of the decisions of other men.

This raises the entire broad question of error, beyond the specific case of cognitive time lags. If power can only be manifest through the medium of others' perceptions, then the translation of the "objective" (and, by the same token, theoretical) ability to control costs and benefits into the perceived ability of doing so is subject to multiple errors: errors of physical perception, of the medium of communication, of cognitive processes, and of communication between perceivers. A blind man will not be intimidated by the display of a gun, nor a bank clerk by a gun too well concealed, while men ignorant of the chemistry of gunpowder may regard rifles as ineffectual clubs, and even those who understand it may fail to convey word of guns' lethality to other men who have never seen them. In such cases, it may suffice to kill one savage, blind man, or bank clerk to educate the rest, but the exercise of suasion will have been invalidated, since force had to be used instead. Nor will symbolic force suffice in every case.

Is power then merely a perceptual phenomenon, and politics nothing more than a particular psychological phenomenon—and a narrow one at that? Surely

not. So far, we have implicitly treated the power relation as bilateral, with a
single controller of costs and benefits facing—and being perceived by—a single
actor-object of his power; even when groups were hypothesized, they were
treated as entirely monolithic, thus identical to individuals. But even if all poli
tics could be treated as a sum of power relations, these relations would be for the
most part not bilateral, but multilateral.

Returning to the example of the client kings who individually perceived
Roman power and individually obeyed imperial commands, there was an im
plicit assumption that the client kings did *not* also perceive the power of their
fellow clients as being potentially additive and did not compare their total power
to the power of Rome. Had such a comparison been made, the power of the
empire would no longer have been seen as so totally superior. It follows that
the power relation between the empire and the single client king was only
procedurally bilateral. In fact it depended on a variety of phenomena, most of
them multilateral: the client's perception and calculation of his own power, of
the power of other clients, of the possibilities of concerted action, of the risks,
costs, and benefits of joint defiance (versus the costs and benefits of obedience),
and so on.

All these factors are conditioned by the perceptions of individuals and the
decisions of (and between) groups—in other words, by all the processes of pol
itics in their full diversity and inherent complexity. Politics in the round ulti
mately determines the relationship between client states and empires; most
significantly, it determines the balance of power, which is a function not only
of the perceived power of the individual units in the system but also of the
degree of cohesion between the clients and within the empire. In spite of the
importance of these complex relations, perception and the problems thereof
remain central, and with them remains the distinction between power and force.

Notes

Preface to the 2016 Edition

1. Brunt, then the Camden professor ("It is a long time since I have read so important a contribution to Roman history"), in "Power and Pax Romana"; and Badian ("He had done scholarship an immense service"), in "In Defense of Empire."

2. Mattern, *Rome and the Enemy*.

3. Isaac, *Limits of Empire*; and in much cruder form, Whittaker, *Frontiers of the Roman Empire*.

4. Among others, see Millar, "Emperors, Frontiers, and Foreign Relations."

5. Mann, "Power, Force and the Frontiers of the Empire."

6. Dyson, *Creation of the Roman Frontier*.

7. Wheeler, "Methodological Limits and the Mirage of Roman Strategy," parts 1 and 2.

8. E.g., among hundreds: Loreto, *Per La Storia Militare del Mondo Antico*: "La Storia della grand strategy un dibattito Luttwak?" (pp. 67–81) and "Il paradosso Luttwakiano power projection, low intensity e funzione del limes" (pp. 84–92); Mickaël Guichaoua, "Lecture critique de Luttwak, *La Grande stratégie de l'Empire romain*," in *Enquetes et Documents*, Revue du CRHIA 30 (2004); and Karl-Wilhelm Welwei, "Probleme römischer Grenzsicherung am Beispiel der Germanienpolitik des Augustus," in Welwei, *Res publica und Imperium: Kleine Schriften zur römischen Geschichte* Historia Einzelschriften, 177 (Stuttgart: Franz Steiner Verlag, 2004), p. 675.

9. *Byzantium and the Early Islamic Conquests*, p. 17.

10. But see Lee, *Information and Frontiers*, p. 87 and n. 29.

11. Cantor, *Die römischen Agrimensoren*.

12. See Luttwak, *Strategy*.

CHAPTER ONE: The Julio-Claudian System

1. Syme, "Some Notes on the Legions under Augustus." Also H. Parker, *The Roman Legions*, pp. 72–92; Ritterling's *"Legio,"* in the PaulyWissowa *Real-Encyclopaedie der klassischen Altertumswissenschaft*.

2. Passerini, "Legio," pp. 555–57.

3. Davies, "A Note on a Recently Discovered Inscription," pp. 110–11. On headquarters' troops, see Breeze, "The Organization of the Legion."

4. Holder, *Studies in the Auxilia*. The classic study is Cheesman, *Auxilia of the Roman Imperial Army*; see also Saddington, "Development of Roman Auxiliary Forces."

5. E.g., Stevenson, *Cambridge Ancient History* (hereafter, *CAH*) 10:229; and Cheesman, *Auxilia of the Roman Imperial Army*, p. 53.

6. MacMullen, "How Big Was the Roman Imperial Army?" In MacMullen, "The Roman Emperors' Army Costs," the estimate is 375,000 prior to Severus's new legions. Cf. Szilágyi, "Les Variations des centres de prépondérance militaire," pp. 133, 147, 156, with estimates of 325,000–356,000 men for the year 6; 318,000–348,000 men for the year 20 and 369,000–375,000 men for the year 46.

7. Pliny, *Natural History*, 7.149; Brunt, *Italian Manpower*, p. 512; re provincial recruitment Forni, *Il Reclutamento*, pp. 65–76, and appendix B, pp. 159–68. Also see Forni, "Estrazione etnica e sociale," p. 344.

8. Watson, *The Roman Soldier*, p. 92, for legionary pay; on retirement grants see ibid., pp. 147–53; on donatives, see ibid., pp. 108–14. For the pay of the *auxilia*, see Watson, "The Pay of the Roman Army."

9. MacMullen, "The Roman Emperors' Army Costs," p. 572. Duncan-Jones, *Money and Government in the Roman Empire*, pp. 33–46, estimates up to 77 percent of the total budget in the second century. Also Pekáry, "Studien zur römischen Währungs," pp. 472–73.

10. Ritterling, "*Legio*."

11. E.g., Pflaum, "Forces et faiblesses," p. 94. Also see Berchem, *L'Armée de Dioclétien*, pp. 103–4, concerning the late principate hence a fortiori applicable to the Julio-Claudian period.

12. Wells, *German Policy of Augustus*, pp. 237–46.

13. Dyson, "Native Revolts in the Roman Empire," esp. pp. 264–67.

14. Webster, *The Roman Imperial Army*, p. 52.

15. Wells, *German Policy of Augustus*, p. 239. See also Chevallier, "Rome et la Germanie," p. 269.

16. Bowersock, *Augustus and the Greek World*, p. 66.

17. Forni, "Limes," pp. 1076–83, esp. type *g* (p. 1080). For the meanings of limes, Pelham, *Essays*, p. 168; and the discussion by Piganiol, "La Notion de *limes*."

18. Sands, *Client Princes*, p. 115.

19. From Kornemann's lecture "Die unsichtbaren Grenzen."

20. For supposed motives, see Tacitus, *Annals*, 11.26. For the relations of the Cherusci based confederation and the Marcomannic state of Maroboduus, see ibid., 11.44. Cf. Harmand, *L'Occident romain*, pp. 106–8. See also Dobiáš, "King Maroboduus," p. 163.

21. Cf. Syme, *CAH* 10:781–83; and Demougeot, *La Formation de l'Europe*, pp. 114–23. On Germanic policy: Thompson, *The Early Germans*, pp. 72–108. On the Sarmatian Iazyges, see Harmatta, "The Sarmatians in Hungary," in his *Studies in the History of the Sarmatians*, pp. 45–46.

22. Stevens, "Britain between the Invasions."

23. Badian, *Foreign Clientelae*, pp. 1–14.

24. Winspear and Geweke, *Augustus and the Reconstruction of Roman Government*, p. 244.

25. See Sands, *Client Princes*, for a functional study of the spheres of Roman control; see p. 77 on dynastic policy, pp. 88–89 on foreign policy.

26. Magie, *Roman Rule*, pp. 1:437, 476, 553–61.

27. Cheesman, *Auxilia of the Roman Imperial Army*, pp. 15–16; and Sands, *Client Princes*, pp. 103–6.

28. Parker, *The Roman Legions*, pp. 139–40, 162–63.

29. See, e.g., Stevenson, *Roman Provincial Administration*, pp. 47–50.

30. Cagnat, *L'Armée romaine d'Afrique*, pp. 7–24.

31. Syme, *CAH* 10:356.

32. Richmond, "Roman Siege-Works of Masada." Much more fully, *Masada: The Yigael Yadin Excavations 1963–1965*. Successive volumes have been issued by the Israel Exploration Society, notably: Netzer, vol. 3 (1991); and Bar-Nathan, vol. 7 (2006).

33. See Sands, *Client Princes*, p. 155, n. 2; and Tacitus, *Annals*, 12.29.

34. Mommsen (*Hist.*, pp. 3:234–36), cited by Stevenson, *Roman Provincial Administration*, p. 37.

35. Casson, *Ships and Seamanship*.

36. Henderson, *Five Roman Emperors*, p. 66.

37. See Parker, *The Roman Legions*, p. 148.

38. Ibid., pp. 89, 271.

39. Cheesman, *Auxilia of the Roman Imperial Army*, p. 59.

40. Sands, *Client Princes*, p. 103.

41. *The Jewish War*, 111.4.2. Cf. ibid., 11.18.9.

42. See, e.g., Badian, *Roman Imperialism*, pp. 29–43.

43. Jones, *History of Rome*, 2:148–49.

44. Badian, *Roman Imperialism*, p. 4.

45. Tarn, *CAH* 10:113–15.

46. Bowersock, *Augustus and the Greek World*, pp. 42–61.

47. Josephus, *The Jewish War*, 1.23.1, 1.27.6.

48. On Eurycles: Bowersock, *Augustus and the Greek World*, pp. 59–60; Josephus, *The Jewish War*, 1.26.1–4.

49. Sands, *Client Princes*, p. 93.

50. Bowersock, *Augustus and the Greek World*, p. 56.

51. Sands, *Client Princes*, p. 93.

52. Syme, *CAH* 11:139, dismisses the accusation against Antiochus as a "flimsy pretext."

53. Badian, *Foreign Clientelae*, p. 12.

54. Bowersock, *Augustus and the Greek World*, pp. 51, 53.

55. Josephus, *The Jewish War*, 1.20.4.

56. Dobiáš, "King Maroboduus," p. 156.

57. See Wheeler, *Rome beyond the Imperial Frontiers*, pp. 91–94, on the relationship between trade and migration routes.

58. Dobiáš, "King Maroboduus," p. 161.

59. For the armed "suasion" concept (=the political application of military force), see Luttwak, *Political Uses of Sea Power*, ch. 1.

60. Holmes, *Architect of the Roman Empire*, 2:116–21. Also Dyson, "Native Revolts in the Roman Empire," pp. 253–258, and the reconstruction in Harmand, *L'Occident romain*, pp. 86–93.

61. Chevallier, "Rome et la Germanie," pp. 271–73.

62. Gordon, "Subsidization of Border Peoples."

63. Harmand, *L'Occident romain*, pp. 86–93.

64. Cf. Alföldi, "Moral Barrier on the Rhine and Danube," pp. 1–16.

65. Thompson, *The Early Germans*, pp. 93–99; and Dobiáš, "King Maroboduus," pp. 163–165

66. Gordon, "Subsidization of Border Peoples," pp. 11–34.

67. Ibid., p. 23.

68. Anderson, *CAH* 10:744–45.

69. Isoghli (near Melitene), where there was a bridge on the road to Nisibis, was in Cappadocia, but the crossing at Samosata, astride the road into Mesopotamia, was in Commagene. Zeugma (Balkis) in northeastern Syria was the key node, linked to the Mediterranean by way of the Orontes valley. See Scramuzza, *Emperor Claudius*, pp. 193–95; and Cary, *Geographic Background*, pp. 181–82.

70. Anderson, *CAH* 10:744–45.

71. Ibid., p. 750 (for Antiochus IV) and p. 751 (for Sohaemus and the sons of Cotys); see also Charlesworth, *CAH* 10:660–61.

72. Josephus, *The Jewish War*, 11.9.6; Garzetti, *L'Impero da Tiberio*, pp. 98–100. The characterization is Garzetti's (*"avventuriero orientale"*). Cf. Charlesworth, *Five Men*, pp. 3–30.

73. Fishwick, "Annexation of Mauretania," pp. 467–68

74. Anderson, *CAH* 10:752; Magie, *Roman Rule*, pp. 540–53.

75. Anderson, *CAH* 10:752.

76. Scramuzza, *Emperor Claudius*, p. 185. Cf. Tacitus, *Annals*, 12.21.

77. Dudley and Webster, *Roman Conquest of Britain*, p. 184.

78. Berchem, "Conquête et organisation par Rome," p. 231.

79. Charlesworth, *CAH* 10:682.

80. Parker, *The Roman Legions*, pp. 9–20; and Webster, *The Roman Imperial Army*, pp. 27–30, both based on the sixth book of Polybius.

81. Harmand, *L'Armée et le soldat*, p. 39.

82. Coussin, *Les Armes romaines.*

83. Re the post-Marian legionary cavalry: Harmand, *L'Armée et le soldat*, p. 46. Also Marin y Peña, *Instituciones militares romanas*, p. 74, par. 137.

84. Parker, *The Roman Legions*, p. 43.

85. But the *hasta* did not disappear; see Coussin, *Les Armes romaines*, pp. 359–60.

86. The sole evidence for the number is Josephus, *The Jewish War*, 111.6.2.

87. Marsden, *Greek and Roman Artillery*, p. 1:183. The enthusiasm of Vegetius (*Epitoma rei militaris*, 2.11) is unpersuasive.

88. Harmand, *L'Armée et le soldat*, p. 62, citing a nineteenth-century French army experiment.

89. Marquardt, *De l'Organisation militaire*, pp. 156, 192.

90. Vigneron, *Le Cheval dans l'antiquité*, pp. 1:261–64.

91. Harmand, *L'Armée et le soldat*, p. 77. On range comparability, see McLeod, "Range of the Ancient Bow," p. 14. Davies, "The Romans at Burnswark," pp. 105–6, argued that slingers were never a regular element in the Roman army.

92. Tacitus, *Histories*, 4.71: "*Dilectus per Galliam habitos in civitates remittit ac nuntiare iubet sufficere imperio legiones: socii ad munia pacis redirent securi velut confecto bello quod Romanae manus excepissent.*"

93. Davies, "A Note on a Recently Discovered Inscription." Davies suggests that there were 480 and 800 foot soldiers in the *cohors quingenaria* and *milliaria*, respectively.

94. Vigneron, *Le Cheval dans l'antiquité*, p. 235.

95. See, e.g., Josephus, *The Jewish War*, 111.5.5. Josephus's *kontos* is clearly a shock weapon, and the cavalry equipped with it is clearly that of the regular auxilia as opposed to client-state or irregular troops.

96. Vigneron, *Le Cheval dans l'antiquité*, pp. 297–99.

97. Cited in Cheesman, *Auxilia of the Roman Imperial Army*, p. 8.

98. Marsden, *Greek and Roman Artillery*, pp. 9, 10; McLeod, "Range of the Ancient Bow," p. 8.

99. Cf. Marsden, *Greek and Roman Artillery*, p. 184.

100. Thompson, *The Early Germans*, pp. 131–40.

101. Ibid., pp. 146–49.

102. Syme, *CAH* 11:146, based on Dio, 67.4.6.

103. *Domitian*, 7: "*Geminari legionum castra prohibuit, nec plus quam mille nummos a quoquam ad signa deponi; quod L. Antonium apud duarum legionum hiberna res novas moliens fidu ciam cepisse etiam ex depositorum summa videbatur.*"

104. Syme, "Some Notes on the Legions under Augustus," p. 33, n. 1.

105. The deployment did not change until two new legions were raised (XV Primigenia and XXII Primigenia) and preparations began for the invasion of Britain, circa A.D. 44. Parker, *The Roman Legions*, p. 129.

106. A letter of Pliny (LXXIV) suggested Daco-Parthian contacts. Some take the suggestion seriously, e.g., Henderson, *Five Roman Emperors,* pp. 273–74. Cf. Sherwin White, *Letters of Pliny,* p. 662.

107. Syme, *CAH* 10:369–73; Holmes, *Architect of the Roman Empire,* 2:111–15, and Henderson, "Native Revolts in the Roman Empire," pp. 250–52.

108. Syme, *CAH* 10:372.

109. Brunt, review of Meyer, *Die Aussenpolitik des Augustus.* For the injunction, see Tacitus, *Annals,* 1.11. For the objection, see *Agricola,* 13. Tacitus, of course, was writing at a time when conquest was in the air; Syme, *Tacitus,* pp. 1:10–29.

110. Cf. Parker, *The Roman Legions,* pp. 82–85 and passim.

111. Syme, *CAH* 10:353.

112. Tierney, "The Map of Agrippa," pp. 154–60.

CHAPTER 2. From the Flavians to the Severi

1. Harmand, *L'Armée et le soldat,* p. 132, n. 240; Webster, *The Roman Imperial Army,* pp. 170–71.

2. See, e.g., the camps described in Richmond, "Romans in Redesdale."

3. Harmand, *L'Armée et le soldat,* pp. 121–28. Harmand's survey of castrametation, pp. 99–135, is comprehensive.

4. E.g., Webster, *The Roman Imperial Army,* p. 171: "This [the palisade] was merely a fence to keep out stray natives and wild animals." See also Harmand, *L'Armée et le soldat,* pp. 129–34, where similar opinions are cited.

5. Adcock, *Roman Art of War,* p. 13.

6. Translated by Gilliver, "Roman Art of War," p. 243.

7. Harkness, *Military System of the Romans,* p. xlix.

8. Adcock, *Roman Art of War,* pp. 13–15.

9. *Liber de munitionibus castrorum,* sec. 1: "*Nunc papilonum tensionem cohortium supra scriptarum ostendimus. Papilio unus occupat pedes X, accipit incrementum tensurae pedes II, tegit homines VIII. Plena centuria habet milites LXXX; erunt papiliones X, qui occurunt in longitudine pedum CXX. Nam quod ad latitudinem hemistrigii pedum XXX attinet, papilioni dantur pedes X, armis pedes V, iumentis pedes IX, fiunt pedes XXIV. Hoc bis, XLVIII, cum praetendunt, efficitur striga pedum LX, reliqui pedes XII, qui conversantibus spatio sufficient. Haec pedatura ad plenas legionis [centurias] est compulata. Ex quibus in vigiliis singulis [quaterni] erunt, et non plus quam octonos papiliones singulae tendunt. Ita fit, ut centurio eorum in eadem pedatura eorum papilionum tensionem alioquin plus dari oportuisset.*"

10. Adcock, *Roman Art of War,* p. 15. Cf. Harmand, *L'Armée et le soldat,* p. 129, n. 226, p. 130, n. 228, and generally pp. 129–34.

11. Adcock, *Roman Art of War,* p. 14.

12. Isaac, *Limits of Empire,* p. 396.

13. Whittaker, *Frontiers of the Roman Empire,* pp. 17–18.

14. Ibid., pp. 10–30.

15. Schlumberger, *Syria,* 20, 71.

16. Forni,"*Limes,*" p. 1280. Cf. Frova, "The Danubian *Limes,*" pp. 25–26. Cf. Condurachi, Barnea, and Diaconu in *Proceedings of the XIII International Congress of Byzantine Studies,* p. 179.

17. Wheeler, "Roman Frontier in Mesopotamia," p. 126 and map, p. 115.

18. For the meanings of limes, see Forni, "*Limes,*" pp. 1075–83. The horizontal limes here discussed corresponds to Forni's type *b,* pp. 1081–82.

19. Forni, "Meaning of the Terms *Limes* and *Limitanei,*" pp. 135–41.

20. Gichon, "45 Years of Research," p. 189, citing *Vita Hadriana*, 12.6, and Ammianus 23.5.2.

21. E.g., Alföldi, *Cambridge Ancient History* (hereafter, *CAH*) 12:213; Pflaum, "Forces et faiblesses," p. 96; Swoboda, "Traian and der Pannonische *Limes*," p. 197. Cf. Berchem, *L'Armée de Dioclétien*, p. 104.

22. Weber, *CAH* 11:312–13; Watson, *The Roman Soldier*, p. 67, commenting on Veget ius's "obsession" with defense; Wells, *German Policy of Augustus*, p. 246, deprecating the "Maginot Line mentality" of the Flavians.

23. Notwithstanding what he wrote himself: see *On War*, pp. 357–59.

24. Lander, *Roman Stone Fortifications.*

25. On the turrets, see Birley, *Research on Hadrian's Wall*, pp. 103–10. Cf. Breeze and Dobson, "Hadrian's Wall."

26. Birley, *Research on Hadrian's Wall*, pp. 227–33.

27. Baradez, *Vue Aerienne de l'organisation romaine*, p. 359. Cf. Berchem, *L'Armée de Dio clétien*, p. 44, on doubts about the chronological coherence of the outposts and *fossatum* proper.

28. Webster, *The Roman Imperial Army*, pp. 246–48. For the shortcomings of such means of communication, see Forbes, *Studies in Ancient Technology.*

29. Robertson, "The Antonine Wall," p. 102.

30. Richmond, "Trajan's Army," pp. 34–36

31. Richmond, "A Roman Arterial Signalling System."

32. Poidebard, *Trace de Rome*; for other open limites, see Bowersock, "A Report on *Ara bia Provincia*," pp. 236–42; and Euzennat, "*Limes* de Volubilis."

33. Magie, *Roman Rule*, p. 1:571.

34. See the Deutsche Limeskommission's catalog: http://www.deutsche-limeskommission .de/index.

35. Lepper, *Trajan's Parthian War*, p. 108.

36. Birley, *Research on Hadrian's Wall*, pp. 84–85.

37. E.g., Berchem, *L'Armée de Dioclétien*, p. 126; similarly, Wheeler, "Roman Frontier in Mesopotamia," p. 126.

38. Harmand, *La Guerre antique*, pp. 177–78, for a list of pre-Roman linear barriers and their military function.

39. Whittaker, *Frontiers of the Roman Empire*, pp. 91, 121.

40. Breeze and Dobson, "Hadrian's Wall," p. 77.

41. Birley, *Research on Hadrian's Wall*, p. 79.

42. Baradez, "Compléments inédits," p. 200.

43. Whittaker, *Frontiers of the Roman Empire*, pp. 147–48.

44. Gichon, "45 Years of Research," p. 186.

45. Gichon, "Roman Frontier Cities," p. 201.

46. Simpson and Shaw, "Purpose and Date of the Vallum," p. 40. Cf. Thompson, *The Early Germans*, pp. 114–15.

47. Richmond, "Hadrian's Wall," pp. 51–52.

48. Birley, *Research on Hadrian's Wall*, pp. 118–25.

49. Birley, "*Alae* and *Cohortes Milliariae*," p. 57; unit strength was 1,000 and 500, for the milliary and quingenary units, respectively.

50. Davies, "*Cohortes Equitatae*," p. 751, n. 1.

51. Alföldy, "Die Hilfstruppen," p. 151.

52. Cheesman, *Auxilia of the Roman Imperial Army*, p. 168.

53. Birley, *Research on Hadrian's Wall*, p. 272.

54. Alföldi, "Die Hilfstruppen," p. 151.

55. Tacitus, *Histories*, 1.79.

56. Thompson, *The Early Germans*, p. 116.

57. Cf. Watson, *The Roman Soldier*, pp. 62–64, where estimates of the weight of kits are doubted.

58. Parker, *The Roman Legions*, pp. 155, 162. Wales, never fully pacified, required an occupation force until the end of Roman rule. Jarrett, "Roman Frontier in Wales."

59. Birley, *Research on Hadrian's Wall*, p. 272. Birley's total is 13,000 infantry, but this appears to include 3,000 milecastle guards, p. 271. Cf. Frere, *Britannia*, p. 137. Frere's figure of 9,500 men for the sixteen wall forts is not reconcilable with Birley's figures.

60. Richmond, "Hadrian's Wall," p. 47.

61. Birley, *Research on Hadrian's Wall*, p. 271, opts for the figure of 3,000 men. Frere, *Britannia*, p. 137, cites a range of 1,500 to 2,000 troops and points out that there is no evidence that *these* men belonged to *numeri* rather than regular *auxilia*, as Birley suggested. See also Birley, *Research on Hadrian's Wall*, pp. 106–9.

62. In addition to Birley's total in *Research on Hadrian's Wall* (p. 272), 11,000 legionary troops are presumed to have been available.

63. Forni, "*Limes*," pp. 1212–13, referring to the later Antonine period. The major fort of Valen was built under Antoninus Pius, while Pfünz and Küsching were rebuilt, all well behind the perimeter line; Schönberger, "Roman Frontier in Germany," p. 170.

64. The trend seemed clearer before than it is now; cf. Brogan, "The Roman *Limes* in Germany," pp. 17–18, with Schönberger, "Roman Frontier in Germany," pp. 164–65; see also Demougeot, *La Formation de l'Europe*, pp. 189–90. For Britain, see Richmond, "Hadrian's Wall," pp. 45–46, 55; and Birley, *Research on Hadrian's Wall*, pp. 134–55, on the Stanegate, the line on which the original chain of forts was built.

65. Alföldi, *CAH* 12:213.

66. Thompson, *The Early Germans*, pp. 146–49.

67. Morris, "Vallum Again," p. 50. The argument is developed further in Birley, "Hadrianic Frontier Policy," pp. 26–33.

68. Starr, *Roman Imperial Navy*, pp. 135–37 (Classis Moesica), pp. 138–41 (Classis Pannonica), and pp. 144–52 (Classis Germanica).

69. Mayerson, "Saracens and the *Limes*," p. 39.

70. Gichon, "45 Years of Research," 189; Gichon, "Roman Frontier Cities," pp. 195–207; Gichon, "Origin of the *Limes Palestinae*," pp. 178, 184. See also the fuller account in Applebaum and Gichon, *Israel and Her Vicinity*, pp. 37–47. Cf. Euzennat, "*Limes* de Volubilis," for an open limes (in Mauretania) structured in a remarkably precise checkerboard pattern. On the Limes Tripolitanus as well, we know of no continuous linear barrier, while road building began as early as 15–16. See Goodchild and Ward-Perkins, "*Limes Tripolitanus*."

71. Roads were always the primary infrastructure of the Syrian limes; see Chevallier, *Les Voies romaines*, pp. 160–65.

72. Baradez, *Fossatum Africae*, pp. 163–208, esp. pp. 202–8; Baradez, "Organisation militaire romaine de l'Algerie."

73. Fentress, *Numidia and the Roman Army*, p. 112.

74. Cherry, *Frontier and Society*, 60–64; and Gichon, "45 Years of Research," p. 189.

75. Garzetti, *L'Impero da Tiberio*, p. 437.

76. It was only in the Black Sea that the Classis Moesica and the Classis Pontica had to deal with seaborne opposition, and that was small in scale, from pirates. Starr, *Roman Imperial Navy*, pp. 127–28.

77. Casson, *Ships and Seamanship*, p. 270. Cf. Amit, "Moyens de communication," p. 218.

78. Casson, *Ships and Seamanship*, p. 285.

79. This corresponds to the *magnum iter*, as opposed to the *justum iter* of 10,000 steps; see Chevallier, *Voies romaines*, pp. 224–25. Amit, "Moyens de communication," passim, calculates Roman strategic mobility on the basis of the 20–24 Roman miles claimed by Vegetius (1.9) for the "ancients," converted by Amit into kilometers. This seems too high; it is appropriate for brisk exercise but not for long-distance marching. Cf. Watson, *The Roman Soldier*, p. 55.

80. Tacitus, *Histories*, 1.31, re German troops sent to Alexandria and recalled. Nor is illness surprising: transits could last 50 or 70 days; Casson, *Ships and Seamanship*, p. 289, n. 82; Starr, *Roman Imperial Navy*, pp. 186–87.

81. Marin, "*Hippagogi.*"

82. Millar, "Emperors, Frontiers, and Foreign Relations," pp. 7–11, for the effects of distance.

83. Parker, *The Roman Legions*, pp. 119, 158, 168. See Watson, *The Roman Soldier*, pp. 15, 16, based on *Inscriptiones Latinae Selectae* (hereafter, *ILS*) 2288 (=*CIL* 6.3492), reproduced on p. 160. Cf. Szilágyi, "Les Variations des centres de prépondérance militaire," pp. 119–210. Szilágyi mostly accounts for the *auxilia* by doubling legionary estimates.

84. Parker, *The Roman Legions*, p. 167.

85. Ibid., pp. 156–58.

86. Ibid., Bowersock, "A Report on *Arabia Provincia*," pp. 232–33. Parker estimated 12 legions on the Danube on the eve of the first Dacian war and 13 for the second.

87. Millar, *Roman Near East*, p. 93.

88. Eck, "Zum konsularen Status von Iudaea im fruhren 2. Jh.," *BASP* 21 (1984): 55.

89. Schäfer, *Bar Kokhba War Reconsidered*, p. 118.

90. Parker, *The Roman Legions*, p. 135, where it was conjectured that the VII Claudia Pia Fidelis was redeployed to Moesia in the year 58, leaving only the XI Claudia Pia Fidelis in Dalmatia. More certainly the VII Claudia Pia Fidelis was redeployed to Viminacium some time during 42–66 CE; see Wilkes, *Dalmatia*, p. 96.

91. Until the year 6, three of the original four legions remained in Egypt; Syme, "Some Notes on the Legions under Augustus," p. 25. In Spain, the number of legions decreased from an estimated six in 27 BCE to four in 13 BCE and three by 9 CE; ibid., p. 22. One legion was removed under Claudius and another during the civil war; Parker, *The Roman Legions*, pp. 131, 144.

92. Jarrett and Mann, "Britain from Agricola to Gallienus," pp. 179–81. In *Agricola*, 24, Tacitus records his hero's friendly detention of an exiled Irish chief against a possible conquest of Ireland, which would have served to surround Britain completely with Roman armies: this definitely suggests a scheme of total conquest. But on the significance of any scheme of Agricola's, see Birley, "Britain under the Flavians," pp. 10–19.

93. Eight new legions were raised in the years 37 (Gaius) and 79 (Vespasian), but 4 were disbanded in 70; Bersanetti, *Vespasiano*, pp. 75–79. This left 29 legions under Vespasian. Domitian raised I Flavia Minerva in 83 (Parker, *The Roman Legions*, p. 150), but the total returned to 29 once V Alaudae was lost in Domitian's Dacian war. The number of legions became 30 when Trajan raised the XXX Ulpia Victrix; ibid., p. 156.

94. Ferrill, *Roman Imperial Grand Strategy*, p. 22.

95. Alföldi, "Die Hilfstruppen," p. 151 and (third century) p. 161.

96. Birley, "*Alae* and *Cohortes Milliariae*," p. 60.

97. Bowersock, *Roman Arabia*, pp. 169–70.

98. Cantor, *Die römischen Agrimensoren.*

99. Winston Churchill published *The River War* at 25, after having but a few years of troubled schooling, yet it reveals a fully developed strategic mind.

100. Jarrett and Mann, "Britain from Agricola to Gallienus," p. 180.

101. Steer, "The Antonine Wall," p. 36.

102. Robertson, "The Antonine Wall," for a description of the structures, esp. pp. 100–103.

103. Jarrett and Mann, "Britain from Agricola to Gallienus," p. 189.

104. Steer, "The Antonine Wall," p. 38.

105. Simpson, "Roman Forts," p. 33 and passim; or for greater detail, Simpson, *Britons and the Roman Army*, pp. 119–21. Cf. Frere, *Britannia*, pp. 160–61.

106. See Birley, "Excavations at Carpow," pp. 258–61, for the policy.

107. Starr, *Roman Imperial Navy*, pp. 144–52.

108. Whittaker, *Frontiers of the Roman Empire*, p. 61.

109. Mattern, *Rome and the Enemy*, pp. 1–23.

110. *"ripam omnen hu[rgis] / a solo extructis item praes[i] / di[i]s per loca opportuna ad / clandestinos latrunculo / rum transitus oppositis / munivit."* ILS 986, cited by Millar, "Emperors, Frontiers, and Foreign Relations," p. 8.

111. Though there were of course differences in emphases and priorities; see Schönberger, "Roman Frontier in Germany," pp. 157–58, 164–65.

112. Ibid., p. 155. On the strategy in general, Syme, *CAH* 11:160–61; and Harmand, *L'Occident romain*, pp. 226–27

113. Schönberger, "Roman Frontier in Germany," pp. 155–56.

114. Ibid., pp. 156–57.

115. *"Imperator Caesar Domitianus Augustus, cum Germani more suo e saltibus et obscuris latebris subinde impugnarent nostros tutumque regressumin profunda silvarum haberent, limitibus per centum viginti milia passuum actis non mutavit tantum statum belli, sed et subiecit dicioni suae hostes, quorum refugia nudaverat."* On which, see Forni, *"Limes,"* p. 1080.

116. Syme, *CAH* 11:162–63, disagrees as does Harmand, *L'Occident romain*, pp. 228–29. But Schönberger, "Roman Frontier in Germany," p. 158, assesses the new Taunus limes as the leftover of a failed attempt to achieve greater goals, as per his theory (p. 160) that the years 89–90 marked the abandonment of the last attempt at large-scale conquest.

117. Schönberger, "Roman Frontier in Germany," pp. 158–59.

118. Ibid., pp. 161–62.

119. Ibid., pp. 168–70.

120. Ibid., pp. 174–75.

121. Stade, *CAH* 11:528–29.

122. Except for the short perimeter that cut across the Dobruja—if it was Domitianic. Trajan's frontier approached the Danube delta; Longden, *CAH* 11:233. (The legionary base at Troesmis was less than 10 miles south of the Danube bend.)

123. Daicoviciu, *La Transilvania*, pp. 41–64; and Demougeot, *La Formation de l'Europe*, pp. 156–60.

124. Alföldi, *CAH* 11:84–85.

125. Daicoviciu, *La Transilvania*, pp. 52–54.

126. Harmatta, "The Sarmatians in Hungary," in his *Studies in the History of the Sarmatians*, pp. 45–46.

127. Syme, *CAH* 11:168–72; and Demougeot, *La Formation de l'Europe*, pp. 162–64.

128. Syme, *CAH* 11:175–76, based on fragmentary information (Dio, 67.7.1).

129. Ibid., p. 176. Demougeot, *La Formation de l'Europe*, pp. 162–64.

130. Syme, *CAH* 11:176–77; Demougeot, *La Formation de l'Europe*, pp. 162–64.

131. Carcopino, "Un retour à l'impérialisme de conquête: L'Or des Daces" (1934), in his *Les Étapes*, pp. 106–17. Contra: Lepper, *Trajan's Parthian War*, p. 107.

132. See a survey of the debate in Waters, "The Reign of Trajan," pp. 417–22.

133. Garzetti, *Problemi dell'eta traianea*, pp. 51–52.

134. Szilágyi, "Les Variations des centres de prépondérance militaire," p. 205, estimates the imperial perimeter, including Dacia, at 10,200 kilometers, and at 9,600 kilometers without it.

135. Daicoviciu, *La Transilvania*, pp. 89–99; for the Trajanic settlement in Dacia, see Daicoviciu, "Dacica," pp. 462–71.

136. Gudea, "Defensive System of Roman Dacia," pp. 64–65.

137. Gudea, "Der dakische Limes." For Dacia's role in the overall Danubian strategy, see Christescu, *Istoria militară*, pp. 36–42. Wade, "Roman Auxiliary Units and Camps in Dacia," surveyed the evidence.

138. Frova, "The Danubian *Limes*," pp. 28–29.

139. Lepper, *Trajan's Parthian War*, pp. 109–10. For the subsidization of the Sarmatians, pp. 125, 126. Frova, "The Danubian *Limes*," pp. 28–29.

140. Parker, *The Roman Legions*, p. 157. On auxilia: Forni, "Contributo alla storia," esp. 206. See also Christescu, *Istoria militară*, pp. 42–46 (on troops) and 47–52 (on fortifications). 129.

141. Manni, *L'Impero di Gallieno*, p. 29.

142. Parker, *The Roman Legions*, pp. 133–35.

143. Garzetti's words in *Problemi dell'eta traianea*, p. 53.

144. Anderson, *CAH* 10:756–57; Magie, *Roman Rule*, pp. 551–53.

145. Until then Cappadocia had been ruled by a procurator supported only by *auxilia*. Parker, *The Roman Legions*, p. 134.

146. Ibid., pp. 134–36; Anderson, *CAH* 10:759–60.

147. Tacitus, *Annals*, 13–15; Gilmartin, "Corbulo's Campaigns in the East."

148. Anderson, *CAH* 10:765–66.

149. Anderson, *CAH* 10:768; Magie, *Roman Rule*, p. 558.

150. Magie, *Roman Rule*, pp. 558–60. On the XV Apollinaris: Parker, *The Roman Legions*, p. 137.

151. Webster, *The Roman Imperial Army*, p. 63: "The prodigious efforts, losses and humiliation were all for nothing."

152. Cf. Henderson, *Five Roman Emperors*, p. 60.

153. Parker, *The Roman Legions*, pp. 148–49; Syme, *CAH* 11:141.

154. Lepper, *Trajan's Parthian War*, pp. 110–12. Oates, *Studies in the Ancient History*, supported Lepper, citing climate and terrain (pp. 1–5) and strategic factors (pp. 67–69). Cf. Waters, "The Reign of Trajan," pp. 422–28.

155. This is the major thesis of Lepper, *Trajan's Parthian War*, pp. 112–22. He responds to objections on pp. 126–36. Cf. Henderson's review in the *Journal of Roman Studies*, pp. 125–26.

156. On the strategic virtues of the Khabur–Jebel Sinjar line: Wheeler, "Roman Frontier in Mesopotamia," p. 127. On rainfall: Oates, *Studies in the Ancient History*, pp. 1–4 and map, p. 2.

157. On the immediate causes of the war, see Longden, *CAH* 11:240; Magie, *Roman Rule*, p. 606 (the glory motive); Guey, *Essai sur la guerre*, pp. 32–35; and Lepper, *Trajan's Parthian War*, pp. 205–6. Lepper rejected the trade-route motive, pp. 158–63, and critiqued the glory motive, pp. 191–204.

158. Longden, *CAH* 11:241, who rejected the (Alexandrian) glory motive. Guey, *Essai sur la guerre*, pp. 140–41, argued that Trajan did not want a diplomatic solution.

159. This is Longden's chronology in *CAH* 11:858–59. Lepper's chronology in *Trajan's Parthian War*, pp. 31–96, differs: 114 CE, campaign in Armenia; 115, conquest of northern Mesopotamia; 116, conquest of Adiabene and fall of Ctesiphon; 117, further conquests across the Tigris (Mesene) and the outbreak of the revolts. Cf. Henderson's review in the *Journal of Roman Studies*, pp. 121–25; and Guey, *Essai sur la guerre*, p. 107, who offers yet another chronology.

160. Weber, *CAH* 11:301–2, drew a stark contrast between Trajan's expansionism and Hadrian's pacifism. Magie, *Roman Rule*, pp. 609–11, concurred. In Lepper, *Trajan's Parthian War*, pp. 212–13, Hadrian generalized Trajan's limited withdrawal. In Guey, *Essai sur la guerre*, pp. 133, 145–46, the formation of client states in 116–117 was merely another way of retreating.

161. Garzetti, *Problemi dell'eta traianea*, pp. 59, 62.

162. Bowersock, "A Report on *Arabia Provincia*," p. 229. He noted the official phraseology, *Arabia adquisita*, as opposed to *capta*, implying an administrative change rather than conquest. For the security provisions, see ibid., pp. 232–40. For Vespasian's road building, see Syme, *CAH* 11:130. Cf. Henderson in the *Journal of Roman Studies*, p. 128, who rejects the parallel with Flavian policy.

163. Parker, *The Roman Legions*, p. 138.

164. Ibid., p. 139.

165. This evaluation would not have applied to the legion IV Scythica, drawn from Moesia. See Parker, *The Roman Legions*, pp. 135, 138.

166. Bowersock, "A Report on *Arabia Provincia*," pp. 219–29. On the limits of Arabia's usefulness, see Applebaum and Gichon, *Israel and Her Vicinity*, pp. 36–37.

167. Suetonius, *Nero*, 13; Magie, *Roman Rule*, p. 561.

168. Suetonius, *Vespasianus*, 8; Josephus, *The Jewish War*, 7.7; Magie, *Roman Rule*, pp. 573–74. On Sophene: Anderson, *CAH* 10:758, n. 3.

169. On Agrippa II: Frankfort, "Le Royaume d'Agrippa II," pp. 665–66. On the Nabateans: Bowersock, "A Report on *Arabia Provincia*," pp. 230–31. For the Syrian statelets, Charlesworth, *CAH* 11:40.

170. Richmond, "Palmyra under the Aegis of Rome," pp. 42–43. On the Bosporan state, see Anderson, *CAH* 10:265–66.

171. Magie, *Roman Rule*, pp. 569–70.

172. Stevenson, *Roman Provincial Administration*, pp. 50–51.

173. Guey, *Essai sur la guerre*, pp. 145–46; Rostovtzeff, *CAH* 11:119.

174. See Lemosse, *Le Régime des relationes*, pp. 116–23.

175. Syme, *CAH* 11:141.

176. Ibid., 11:139. For Anatolia, see Magie, *Roman Rule*, pp. 570–73. For the completed system, see Chevallier, *Voies romaines*, p. 161.

177. See Magie, *Roman Rule*, p. 574, 576; on Arabia, see Bowersock, "A Report on *Arabia Provincia*," p. 230.

178. Tacitus, *Annals*, 4.5, with Parker, *The Roman Legions*, p. 163: Cappadocia had two legions, Syria three, Judea two, and Arabia one. See also Syme, *CAH* 11:140–41.

179. Braund, *Rome and the Friendly King*, p. 187.

180. Lemosse, *Le Régime des relationes*, p. 117, n. 250.

181. Domitian massed a force of nine legions against the Dacians in 87 (Parker, *The Roman Legions*, p. 158), including V Alaudae, possibly lost in the fighting (Watson, *The Roman Soldier*, p. 23, n. 43). In his first Dacian war, Trajan had a force of twelve legions on the

Danube (Parker, *The Roman Legions*, p. 156), with thirteen for the second war (ibid., p. 157). Cf. Longden, *CAH* 11:231.

182. Lemosse, *Le Régime des relationes*, p. 119.

183. Richmond, "Queen Cartimandua"; Jarrett and Mann, "Britain from Agricola to Gallienus," pp. 179–83; Birley, "The Brigantian Problem." Cf. Steer, "The Antonine Wall," p. 36.

184. On the Batavi, see Tacitus, *Germania*, 29; on the Frisii, 34; on the Tencteri and Usipetes, 32. Also Harmand, *L'Occident romain*, pp. 224–25; and Demougeot, *La Formation de l'Europe*, p. 143.

185. If the *Vita Hadriani* (5.6.8) of *SHA* can be trusted; see also Gordon, "Subsidization of Border Peoples," p. 44.

186. Syme, *CAH* 11:186.

187. Miller, *CAH* 12:9. Also Rostovtzeff, *CAH* 11:119; and Magie, *Roman Rule*, pp. 685–86.

188. For a more skeptical view, see Thompson, *The Early Germans*, p. 150, on logistics.

189. Josephus, *The Jewish War*, 11.18.9. Parker, *The Roman Legions*, p. 138, deduces from this passage that *vexillationes* of the IV Scythica and VI Ferrata were serving with Cestius Gallus.

190. MacMullen, *Soldier and Civilian*, pp. 77–78.

191. Isaac, *Limits of Empire*, pp. 139–40.

192. Keppie, *Making of the Roman Army*, pp. 192–94.

193. Forni, "Estrazione etnica e sociale," pp. 386–90.

194. Parker, *The Roman Legions*, p. 145; Bersanetti, *Vespasiano*, pp. 75–79. Also Birley, "A Note on the Title *Gemina*," 58.

195. Chilver, "The Army in Politics," p. 35. Chilver notes that Vespasian did not purchase loyalty: his donatives were small, and there was no increase in pay.

196. Schönberger, "Roman Frontier in Germany," p. 189 (nos. 38, 51, 21, 32).

197. Ibid., p. 165.

198. Davies, "Daily Life of the Roman Soldier," p. 332.

199. Baradez, "Les Thermes legionnaires de Gemellae," p. 16.

200. Webster, *The Roman Imperial Army*, pp. 195–96, 251, 254.

201. Davies, "Medici of the Roman Armed Forces"; for standards, see p. 86.

202. Davies, "Joining the Roman Army," pp. 208–13.

203. For basic training, see ibid., pp. 209–10; and Watson, *The Roman Soldier*, pp. 54–?? For an artillery range, see Davies, "The Romans at Burnswark," pp. 107–8, 110.

204. Breeze, "The Organization of the Legion," p. 50.

205. *ILS* 2487, translated by Jones, *History of Rome*, 2:154–55. On professionalism, cf. Syme, "Hadrian the Intellectual."

206. "*Armorum peritissimus et rei militaris scientissimus*" in the *Vita Hadriani* of *SHA*, Henderson, *Life and Principate of the Emperor Hadrian*, p. 171.

207. Weber, *CAH* 11:312–13.

208. Watson, *Roman Soldier*, pp. 89–92. Also pp. 97–99 on other pay rates; pp. 102–4 on stoppages.

209. Wilkins, *Roman Artillery*, pp. 39–50.

210. Richmond, "Trajan's Army," p. 14.

211. There are no grounds to dissent from Cheesman, *Auxilia of the Roman Imperial Army*, p. 168, where 220,000 auxiliaries (possibly including *numeri*) are compared to legionary troops.

212. Birley, "*Alae* and *Cohortes Milliariae*," pp. 55, 60.

213. Cf. Southern, *"Numeri* of the Roman Imperial Army." Mann, "A Note on the *Numeri,*" p. 502. Cf. Forni, "Contributo alla storia," p. 25.

214. Speidel, "Rise of Ethnic Units," pp. 202–31.

215. That is, they were barbarians: ibid., pp. 505–6. In general, see Cheesman, *Auxilia of the Roman Imperial Army,* pp. 85–90; Watson, *The Roman Soldier,* p. 16; Webster, *The Roman Imperial Army,* pp. 149–50; Syme, *CAH* 11:132. For units in Britain, see Simpson, *Britons and the Roman Army,* pp. 131–35, but cf. n. 2.

216. Watson, *The Roman Soldier,* p. 16.

217. Ibid., pp. 99–101. There are no data for the *numeri,* but given that legionary pay was 224 *denarii* per year; *ala* pay, 200; mounted *cohors equitata* pay, 150; and foot auxiliary, 100; the *numeri* might have received 75 or so.

218. Sherwin-White, *Roman Citizenship,* pp. 191–92.

219. Ibid., p. 215.

220. Mann, "A Note on the *Numeri,*" p. 505.

221. See the map (no. 40) opposite p. 216 in Schleiermacher, *Der römische Limes.*

222. Garzetti, *L'Impero da Tiberio,* p. 439.

223. Forni, "Contributo alla storia," p. 214.

224. Birley, *"Alae* and *Cohortes Milliariae,"* p. 55.

225. Davies, *"Cohortes Equitatae,"* p. 752.

226. Cheesman, *Auxilia of the Roman Imperial Army;* Davies, *"Cohortes Equitatae,"* pp. 754–63; Davies, *The Roman Imperial Army,* p. 29.

227. Davies, *The Roman Imperial Army,* p. 29.

228. Rachet, *Rome et les Berbères,* pp. 196–200.

229. Baradez, "L'Enciente de Tipasa," pp. 75–77.

230. See the evidence in Birley, *Marcus Aurelius,* p. 165.

231. Regibus, *La Monarchia militare,* p. 108. There is a study of the *vexillationes:* Saxer, *Untersuchungen zu den vexillationen.*

232. Mattern, *Rome and the Enemy,* p. 97.

233. *SHA,* 12.13: *"Dum Parthicum bellum geritur, natum est Marcomannicum, quod diu eorum qui aderant arte suspensum est."*

234. Birley, *Marcus Aurelius,* p. 165; and Fitz, "Réorganization militaire au début des guerres marcomannes."

235. *ILS* 9200, cited by Syme, *CAH* 11:163.

236. Mann, "The Raising of New Legions," p. 485.

CHAPTER THREE: Defense-in-Depth

1. Not to be taken for granted. Syrian troops I saw in action in 1967 blundered into a gully not far from their permanent garrison outpost.

2. Ferrill, *Roman Imperial Grand Strategy,* p. 44.

3. Isaac, *Limits of Empire,* p. 374.

4. Parker, *The Roman Legions,* p. 167. For the III Italica at Regensburg: Schönberger, "Roman Frontier in Germany," p. 172.

5. Whittaker, *Frontiers of the Roman Empire,* pp. 206–9.

6. E.g., Heather, "Late Roman Art of Client Management"; also "Holding the Line: Frontier Defense and the Later Roman Empire," in *The Makers of Ancient Strategy,* pp. 227–46.

7. Tovey, *Elements of Strategy,* pp. 133–34.

8. Thompson, *The Early Germans,* pp. 140–49.

9. Davies, "The Daily Life of the Roman Soldier," p. 318.

10. In southeastern Europe until the 1960s and in Andean Latin America, highway seg-
ments leading to international borders were routinely left unpaved as a counterinvasion
measure.

11. Whittaker, *Frontiers of the Roman Empire*; and Isaac, *Limits of Empire*, in extenso.

12. Contra: Keppie, *Making of the Roman Army*, p. 191.

13. For the scarce siege-craft skills of barbarians: Thompson, *A Roman Reformer and
Inventor*, pp. 45–46.

14. Butler, "Defences of the Fourth-Century Fortress at York," p. 97.

15. Petrikovits, "Fortifications in the North-Western Roman Empire," p. 197.

16. Ibid., pp. 194–95.

17. Butler, "Defences of the Fourth-Century Fortress at York," p. 97.

18. Petrikovits, "Fortifications in the North-Western Roman Empire," p. 193, notes
that Franks and Alamanni "very seldom tried a siege."

19. Cf. Whittaker, *Frontiers of the Roman Empire*, p. 196, citing Blockley, *The Fragmen-
tary Classicizing Historians of the Later Roman Empire*, pp. 230–32.

20. Thompson, *The Early Germans*, pp. 133–34.

21. Isaac, *Limits of Empire*, p. 254, confirmed the strategic shift he elsewhere denied
"The fact that the Mesopotamian cities were fortified on a massive scale implies that
Diocletian and his successors gave up any notion of protecting the countryside against major
raids."

22. By the invention of a new grand strategy; see Luttwak, *The Grand Strategy of the
Byzantine Empire*, ch. 1.

23. The sources are poor; see Birley, *Marcus Aurelius*, pp. 223–45, 283–86, and n. 24.

24. See Schönberger, "Roman Frontier in Germany," pp. 171–72.

25. Birley, *Marcus Aurelius*, p. 165, based on (the ever-dubious) SHA, *Vita Marci*, 12.13.

26. Oates, *Studies in the Ancient History*, pp. 72–73; Magie, *Roman Rule*, pp. 1:660–63.

27. Demougeot, *La Formation de l'Europe*, pp. 215–29; Fitz, "Military History of Pan-
nonia," pp. 32–36; Oliva, *Pannonia*, pp. 260–78.

28. Parker, *The Roman Legions*, pp. 116–17. See also Mann, "The Raising of New Le-
gions," pp. 486–89.

29. Brusin, "Le Difese della romana aquileia," p. 87; Degrassi, *Il Confine nord-orientale*,
p. 113.

30. Oliva, *Pannonia*, pp. 96–113; *Vita Marci*, 21.6–8.

31. Romanelli, "L'esercito Romano," p. 65; cf. Parker, *The Roman Legions*, p. 168.

32. Demougeot, *La Formation de l'Europe*, pp. 220–24; Birley, *Marcus Aurelius*,
pp. 233–45.

33. Demougeot, *La Formation de l'Europe*, pp. 224–27; Birley, *Marcus Aurelius*, pp. 272–
86 and passim.

34. Demougeot, *La Formation de l'Europe*, p. 216, citing Dio, 42.3.1. Weber, *Cambridge
Ancient History (hereafter, CAH)* 11:352, amends this to read 6,000 *survivors* of a larger initial
force. Background: Oliva, *Pannonia*, pp. 299–304. Contra: *SHA, Vita Marci*, 24.5; cf. Weber,
CAH 11:355, 362.

35. Demougeot, *La Formation de l'Europe*, p. 395. On Goth attacks in general, see ibid.,
pp. 393–433; and Bury, *Invasion of Europe*, pp. 3–22.

36. Schönberger, "Roman Frontier in Germany," pp. 176–77.

37. Demougeot, *La Formation de l'Europe*, pp. 521–32; Schönberger, "Roman Frontier in
Germany," pp. 177–79.

38. Frere, *Britannia*, pp. 188–89.

39. Demougeot, *La Formation de l'Europe*, pp. 419–28; Alföldi, *CAH* 11:147–50; Starr, *Roman Imperial Navy*, pp. 194–96.

40. Demougeot, *La Formation de l'Europe*, p. 419.

41. Alföldi, *CAH* 11:148.

42. Millar, "P. Herennius Dexippus," pp. 26–27.

43. Thompson, "Athenian Twilight," pp. 61–65.

44. Frere, *Britannia*, pp. 188–89, 338, and passim. On the *comes* and his command, see ibid., pp. 212, 229.

45. Alföldi, *CAH* 12:149; Bury, *Invasion of Europe*, p. 22.

46. Christensen, *L'Iran sous les Sassanides*, pp. 84–96.

47. Oates, *Studies in the Ancient History*, p. 93; Miller, *CAH* 12:16–17; Besnier, *L'Empire romain*, pp. 24–25.

48. Wolski, *L'Empire Arsacid*.

49. Christensen, *L'Iran sous les Sassanides*, pp. 97–98.

50. Dio 80.3, 4, cited in Millar, *Roman Near East*, p. 147.

51. Cited in Dodgeon and Lieu, *Roman Eastern Frontier and the Persian Wars*, pp. 10–11.

52. Ibid., p. 220.

53. Ibid., pp. 207–12.

54. Magie, *Roman Rule*, pp. 695–96; Oates, *Studies in the Ancient History*, p. 74; Besnier, *L'Empire romain*, pp. 105–7.

55. Esslin, *CAH* 12:86–88; Christensen, *L'Iran sous les Sassanides*, pp. 130–31.

56. Besnier, *L'Empire romain*, pp. 151, 153, 177–78.

57. Millar, *Roman Near East*, p. 148. Also Seston, *Dioclétien et la tétrarchie*, pp. 159–72. On the treaty of 298 CE, see ibid., pp. 172–74. Cf. Stein, *Histoire du Bas-Empire*, vol. 1, pt. 1, pp. 79–80, where the date is given as 297 CE. On the treaty of 363 CE, see Seston, *Dioclétien et la tétrarchie*, p. 171.

58. Schönberger, "Roman Frontier in Germany," p. 175, described the attacks as "a decisive point in the history of Upper Germany and Raetia."

59. Ibid., p. 176.

60. On the Carpi, see Demougeot, *La Formation de l'Europe*, pp. 437–39. On the Goths, see Musset, *Les Invasions*, pp. 80–82. On the sequence of events, see Demougeot, *La Formation de l'Europe*, pp. 409–11.

61. Demougeot, *La Formation de l'Europe*, p. 412.

62. On Dacia, see ibid., pp. 434–42; on Goth victories after 250, see ibid., pp. 416–25; on the Franks until circa 260, see ibid., pp. 465–89; on Shapur's threat to eastern Anatolia, see Besnier, *L'Empire romain*, p. 178.

63. Demougeot, *La Formation de l'Europe*, p. 466.

64. Millar, *Roman Near East*, p. 179, citing *Fragmenta Historicorum Graecorum* 4.189; Seston, *Dioclétien et la tétrarchie*, pp. 173–74.

65. Mann, "Frontiers of the Principate," pp. 524–25; his thesis is here controverted in extenso.

66. Demougeot, *La Formation de l'Europe*, pp. 434–42, 452–57; and Daicoviciu, *La Transylvanie*, pp. 165–87. Also Manni, *L'Impero di Gallieno*, pp. 26–31, where each phase is distinguished.

67. Schönberger, "Roman Frontier in Germany," pp. 176–77.

68. Mann, "Frontiers of the Principate," p. 529.

69. Lesquier, *L'Armée romaine*, pp. 474–77.

70. Thompson, *Visigoths*, pp. 3–6.

71. Ibid., pp. 10–12; on the strategy, see Stein, *Histoire du Bas Empire*, pp. 128–29.

72. Rachet, *Rome et les Berbères*, pp. 238–50, 252–54.

73. Seston, *Dioclétien et la tétrarchie*, p. 119, n. 1.

74. Ibid., pp. 117–20; Rachet, *Rome et les Berbères*, pp. 254–56.

75. Warmington, *North African Provinces*, p. 8; also Seston, *Dioclétien et la tétrarchie*, pp. 116–17.

76. Rachet, *Rome et les Berbères*, p. 258; Euzennat, "*Limes* de Volubilis," pp. 198–99.

77. Lesquier, *L'Armée romaine*, pp. 474–77; Seston, *Dioclétien et la tétrarchie*, p. 158.

78. Seston, *Dioclétien et la tétrarchie*, pp. 168–74; Stein, *Histoire du Bas-Empire*, p. 80.

79. Gichon, "The Negev Frontier," pp. 49–50; Johnson, *Late Roman Fortifications*, p. 198.

80. Gichon, "The Negev Frontier," 53 and passim.

81. Isaac, *The Limits of Empire*, pp. 128–29, citing Rothenberg in *Roman Frontier Studies* (1967).

82. Graf, "Rome and the Saracens."

83. Gichon, "45 Years of Research."

84. Davies, "The Daily Life of the Roman Soldier," p. 326; Petrikovits, "Fortifications in the North-Western Roman Empire," p. 188.

85. Schönberger, "Roman Frontier in Germany," p. 178; Mertens and Leva, "Le Fortin de Braives."

86. Petrikovits, "Fortifications in the North-Western Roman Empire," p. 188.

87. Ibid., p. 189.

88. Demougeot, *La Formation de l'Europe*, p. 497. There were also sea raids.

89. Ibid., p. 498.

90. Besnier, *L'Empire romain*, pp. 180–81, n. 234.

91. Minor, "Brigand, Insurrectionist and Separatist Movements," pp. 118–22.

92. Noted as a trend in fort design in Johnson, *Late Roman Fortifications*, p. 242; Petrikovits, "Fortifications in the North-Western Roman Empire," p. 193.

93. Seston, *Dioclétien et la tétrarchie*, pp. 178–79 and map opposite p. 374; but cf. map 1, opposite p. 130, in Berchem, *L'Armée de Dioclétien*.

94. As recommended by Vegetius, which was noted in Johnson, *Late Roman Fortifications*, p. 31; Petrikovits, "Fortifications in the North-Western Roman Empire," pp. 193–95.

95. Ibid., pp. 195–96.

96. As in Dinogetia-Garvan in Scythia; Condurachi, "Neue Probleme and Ergebnisse," pp. 165–66.

97. Petrikovits, "Fortifications in the North-Western Roman Empire," p. 197.

98. Thompson, *A Roman Reformer and Inventor*, pp. 44–50.

99. Petrikovits, "Fortifications in the North-Western Roman Empire," p. 197; Oelmann, "The Rhine *Limes*," pp. 87, 95.

100. Johnson, *Late Roman Fortifications*, p. 37, cited 3–4 meters, which he claimed was more than double the thickness in previous periods.

101. Petrikovits, "Fortifications in the North-Western Roman Empire," p. 197.

102. Florescu, "Le Phases de construction."

103. Frere, *Britannia*, pp. 342–59; and Butler, "Defences of the Fourth-Century Fortress at York," p. 97.

104. Richmond, *The City Wall of Imperial Rome*, p. 243; Corder, "Reorganization of the Defences," pp. 34–35.

105. Marsden, *Greek and Roman Artillery*, pp. 195–96.

106. Richmond, *The City Wall of Imperial Rome*, pp. 79–80; Corder, "Reorganization of the Defences," pp. 34–36 (diagram).

107. Thompson, *A Roman Reformer and Inventor*, pp. 49ff.

108. Petrikovits, "Fortifications in the North-Western Roman Empire," p. 197.

109. Laur-Belart, "Late *Limes* from Basel to the Lake of Constance," p. 57; Florescu, Les Phases de construction"; Oelmann, "The Rhine *Limes*," p. 87.

110. Johnson, *Late Roman Fortifications*, pp. 38–40.

111. Petrikovits, "Fortifications in the North-Western Roman Empire," pp. 198–99.

112. Gichon, "The Negev Frontier," p. 52.

113. Johnson, *Late Roman Fortifications*, pp. 44–50.

114. Petrikovits, "Fortifications in the North-Western Roman Empire," pp. 199–201.

115. Ibid., pp. 201–3; Schönberger, "Roman Frontier in Germany," p. 182; Laur-Belart, "Late *Limes* from Basel to the Lake of Constance," p. 58. Cf. Gichon, "The Origin of the *Limes Palestinae*," pp. 180–81.

116. Schönberger, "Roman Frontier in Germany," p. 187, n. 346.

117. Ibid., p. 178.

118. E.g., Dio's third-century views; Jones, *History of Rome*, p. 2:58.

119. Marcianopolis and Philippopolis resisted Cniva successfully; so did Salonika in 256 CE.

120. Brusin, "Le Difese della romana Aquileia," p. 87.

121. Butler, "Late Roman Town Walls in Gaul," p. 26.

122. Ibid.; Petrikovits, "Fortifications in the North-Western Roman Empire," p. 189.

123. Demougeot, *La Formation de l'Europe*, pp. 485–88.

124. Re the Alamanni of 254, ibid., pp. 488–90; re the Franks, pp. 496–98. See also Butler, "Late Roman Town Walls in Gaul," p. 26.

125. Butler, "Late Roman Town Walls in Gaul," p. 40.

126. Labrousse in Renard, *Hommages à Albert Grenier*, p. 1:925.

127. Thompson, "Athenian Twilight," p. 63.

128. Johnson, *Late Roman Fortifications*, p. 99; Butler, "Late Roman Town Walls in Gaul," p. 40.

129. Laur-Belart, "Late *Limes* from Basel to the Lake of Constance," p. 56.

130. Schönberger, "Roman Frontier in Germany," p. 178, n. 286.

131. Petrikovits, "Fortifications in the North-Western Roman Empire," p. 192, n. 30; Bartolucci in Renard, *Hommages à Albert Grenier*, pp. 1:241–43.

132. MacMullen, *Soldier and Civilian*, pp. 79–80.

133. Cf. Mattingly, "Farmers and Frontiers," pp. 141–43; Goodchild and Ward-Perkins, "*Limes Tripolitanus*," p. 84.

134. Petrikovits, "Fortifications in the North-Western Roman Empire," p. 191. Its purpose is irrelevant; it *could* be done.

135. MacMullen, *Soldier and Civilian*, pp. 138–51.

136. Berchem, *L'Armée de Dioclétien*, pp. 19–24; he dismisses *SHA*'s *Severus Alexander*, 58.4, as anachronistic.

137. Cf. Stein, *Histoire du Bas-Empire*, p. 62, among others.

138. Seston, "Du *comitatus* de Dioclétien," p. 289.

139. MacMullen, *Soldier and Civilian*, pp. 1–22, 151–53, and n. 34.

140. Jones, *Later Roman Empire*, pp. 2:649, 650, 652–53. Cf. Clemente, "*Notitia Dignitatum*," pp. 319–42.

141. Mazzarino, *Aspetti sociali del quarto secolo,* pp. 314–30.

142. Birley, "Septimius Severus and the Roman Army." Cf. Smith, "Army Reforms," pp. 489–500.

143. Isaac, *Limits of Empire,* pp. 208–13; and Isaac, "Meaning of the Terms *Limes* and *Limitanei.*"

144. Berchem, *L'Armée de Dioclétien,* pp. 100–101, depicted the *dux limitis* as becoming a purely territorial commander, in charge of limes and *limitanei,* after the Constantinian reforms.

145. Ibid., pp. 100–102.

146. MacMullen, *Soldier and Civilian,* p. 153.

147. Ibid., paraphrased but reversed. Based on Goodchild and Ward-Perkins, "*Limes Tripolitanus,*" pp. 94–95.

148. Goodchild and Ward-Perkins, "*Limes Tripolitanus,*" p. 43, citing a Theodosian constitution (*Cod. Theod.* 7.15.1).

149. Jones, *Later Roman Empire,* p. 2:663, based on *Cod. Just.* 1.27.2 (in Jones, p. 3:205, n. 130).

150. Schönberger, "Roman Frontier in Germany," p. 187.

151. Berchem, *L'Armée de Dioclétien,* pp. 91–92, 93. The evidence is from the *Notitia Dignitatum,* but Berchem dates it to Constantine.

152. Clemente, "*Notitia Dignitatum,*" pp. 146–51. Others hold that the *auxilia* were smaller (300 men) and the *cunei* much larger (1,200 men); Várady, "New Evidence on Some Problems," p. 360. Also Clemente, "*Notitia Dignitatum,*" p. 151, n. 58.

153. Berchem, *L'Armée de Dioclétien,* pp. 85, 89, 101.

154. "*Le legioni di frontiera avevano assunto tutti i peggiori atteggiamenti degli imboscati d'ogni tempo. . . . Vicini al nemico senza combatterlo, sedentari, oziosi, politicanti.*" Regibus, *La Monarchia militare,* p. 63.

155. For the Severan list, see Jones, *Later Roman Empire,* pp. 3:368–74, table 9.

156. Homo, *Essai sur le règne de l'empereur Aurélien,* p. 201, n. 9.

157. Cagnat, *L'Armée romaine d'Afrique,* pp. 159–61.

158. Summarized in Jones, *Later Roman Empire,* pp. 3:379–80, table 15.

159. On numbers, ibid., pp. 2:681–82. Cf. Clemente, "*Notitia Dignitatum,*" pp. 146–56. The tetrarchic centuries may have been reduced to 60 men; Birley, "Hadrian's Wall and Its Neighbourhood," p. 7.

160. Vegetius, 1.20, 21. See Paschoud, *Roma aeterna,* pp. 110–18.

161. Marsden, *Greek and Roman Artillery,* p. 195.

162. Coussin, *Les Armes romaines,* pp. 480–92.

163. Isaac, "Meaning of the Terms *Limes* and *Limitanei,*" pp. 140–141, and others disagree; they depict Diocletian's changes as merely incremental.

164. Berchem, *L'Armée de Dioclétien,* p. 52; Petrikovits, "Fortifications in the North Western Roman Empire," p. 181. The policy was continued by Constantine; see ibid., p. 182; and Thompson, *Visigoths,* pp. 19–22.

165. *Paneg. Lat.* 9.18.4, as cited in Berchem, *L'Armée de Dioclétien,* p. 89. For Malalas, see ibid., p. 17.

166. Berchem, *L'Armée de Dioclétien,* pp. 177–78; cf. ibid., pp. 3–6.

167. Ibid., pp. 26–27 and map following p. 130.

168. Seston, *Dioclétien et la tétrarchie,* pp. 131–32.

169. Berchem, *L'Armée de Dioclétien,* pp. 69–71.

170. Jones, *Later Roman Empire,* p. 1:56.

171. This transformation is a large subject; see the summaries in Jones, *Later Roman Empire*, pp. 1:61–68; Seston, *Dioclétien et la tétrarchie*, pp. 261–94; and Berchem, "L'Annone militaire dans l'empire romain."

172. Smith, "Army Reforms," pp. 492–96; and Birley, "Septimius Severus and the Roman Army," pp. 63–65.

173. Jones, *Later Roman Empire*, pp. 2:308–12.

174. Including the uncertain IV Italica; Mann, "The Raising of New Legions," p. 484.

175. Nischer, "Army Reforms of Diocletian and Constantine," boldly estimated a 100 percent increase from 34 to 68 units. Contra: Parker, "Legions of Diocletian and Constantine," pp. 177–80. But Besnier, *L'Empire romain*, p. 304 and nn. 160 and 164, endorsed Nischer, and Jones, *Later Roman Empire*, pp. 1:59–60, arrived at the same result.

176. Berchem, *L'Armée de Dioclétien, pp. 15–17 and map opposite p. 130.*

177. Ibid., pp. 24–26.

178. Jones, *Later Roman Empire*, p. 1:57.

179. Berchem, *L'Armée de Dioclétien*, pp. 90–93, endorsed by Jones, *Later Roman Empire*, p. 1:99.

180. Berchem, *L'Armée de Dioclétien*, pp. 90–91.

181. On *cunei* and *auxilia* under Constantine, see Jones, *Later Roman Empire*, pp. 1:99–100.

182. Berchem, *L'Armée de Dioclétien*, p. 85.

183. Ibid., pp. 101–2.

184. Southern and Dixon, *Late Roman Army*, p. 36 (if an inference can be drawn from a constitution of 372; *Cod. Theod.* 7.22.8, as cited ibid., p. 102, n. 1).

185. As Zosimus charged; Jones, *Later Roman Empire*, p. 2:609.

186. Berchem, *L'Armée de Dioclétien*, p. 93.

187. Jones, *Later Roman Empire*, p. 3:378, table 12.

188. Várady, "Additional Notes," pp. 391–406.

189. Clemente, "*Notitia Dignitatum*," p. 299, reproduced the list.

190. Alföldi, "La Grande Crise," p. 7.

191. Frank, *Scholae Palatinae*, pp. 17–26.

192. Speidel, *Die Equites Singulares Augusti.*

193. Stein, *Histoire du Bas-Empire*, pp. 1:57–58. Jones, *Later Roman Empire*, pp. 1:53–54, 2:636–40; Frank, *Scholae Palatinae*, pp. 33–41.

194. Frank, *Scholae Palatinae*, pp. 47–49. Cf. Jones, *Later Roman Empire*, p. 2:613.

195. Frank, *Scholae Palatinae*, pp. 52–53.

196. Durry, *Les Cohortes Prétoriennes*; and Passerini, *Coorti Pretorie*, pp. 1–53.

197. Passerini, *Coorti Pretorie*, p. 44.

198. Ibid., p. 53.

199. Ibid., pp. 54–55, 61.

200. Reynolds, *Vigiles of Ancient Rome.*

201. Mann, "The Raising of New Legions," n. 27; Birley, *Marcus Aurelius*, p. 217.

202. Smith, "Army Reforms," p. 486, n. 28.

203. Ibid., n. 1, for ancient, and p. 487, n. 33, for modern opinions.

204. Durry, *Les Cohortes Prétoriennes*, pp. 81–87, and table, p. 89, n. 4.

205. Birley, "Septimius Severus and the Roman Army," p. 65.

206. Platnauer, *Life and Reign of the Emperor*, pp. 162–63.

207. Alföldi, *CAH* 12:213.

208. Ferrill, *The Fall of the Roman Empire*, p. 32; and de Blois, *Policy of the Emperor Gallienus*, pp. 29–30.

209. Manni, *L'Impero di Gallieno*, pp. 58–59; Regibus, *La Monarchia militare*, pp. 78–79; Alföldi, *CAH* 12:216–18; Besnier, *L'Empire romain*, p. 190.

210. Parker, "Legions of Diocletian and Constantine," p. 188.

211. Besnier, *L'Empire romain*, p. 190.

212. Stein, *Histoire du Bas-Empire*, p. 1:55 and p. 2:430, n. 216, citing Vegetius, *2.6*, dated to 260–290. Cf. Parker, "*Antiqua Legio* of Vegetius."

213. Alföldi, *CAH* 12:217.

214. Ibid., p. 216.

215. Paschoud, *Roma aeterna*, p. 117.
Eadie, "Development of Roman Mailed Cavalry."

216. Ibid., pp. 166 (Josephus) and 167; Coussin, *Les Armes romaines*, p. 479.

217. Ibid., p. 167.

218. Homo, *Essai sur le règne de l'empereur Aurélien*, p. 88.

219. Eadie, "Development of Roman Mailed Cavalry," p. 170. Listed in the *Notitia* are a *schola*, a *cuneus*, and five *equites* of *clibanarii* in the East, as well as one *equites* and the *sagittari* in the West.

220. Seston, *Dioclétien et la tétrarchie*, pp. 52–53. The date 298 should be 285. Cf. Besnier, *L'Empire romain*, pp. 277–78.

221. Jones, *Later Roman Empire*, pp. 1:55, 3:376, table 10.

222. Seston, *Dioclétien et la tétrarchie*, p. 299. Cf. Jones, *Later Roman Empire*, p. 1:53.

223. Jones, *Later Roman Empire*, p. 3:376, table 10.

224. Stein, *Histoire du Bas-Empire*, pp. 1:72–73. Seston, *Dioclétien et la tétrarchie*, pp. 30?–7, differed in part: "*L'armée des comitatenses du Bas-Empire est donc née d'une conception stratégique de Gallien, dont le danger politique a ete supprime par Dioclétien et dont Constantin a perfectionné l'organization technique.*"

225. Passerini, *Coorti Pretorie*, p. 57. Some Praetorians went to Mauretania with the Augustus Maximian in 296; cited by Seston, *Dioclétien et la tétrarchie*, p. 119, n. 1.

226. Berchem, *L'Armée de Dioclétien*, p. 107.

227. Mazzarino, "*Lanciarii*"; and Seston, "Du *comitatus* de Dioclétien," pp. 293–94.

228. Berchem, *L'Armée de Dioclétien*, pp. 107–8. Cf. Jones, *Later Roman Empire*, pp. 1:52, 53. Nevertheless, Jones (p. 2:608) described the comitatus as "small."

229. Nischer, "Army Reforms of Diocletian and Constantine." Contra: Baynes, "Three Notes on the Reforms of Diocletian and Constantine," pp. 201–8.

230. Seston, "Du *comitatus* de Dioclétien," n. 246. Seston praised Berchem's method but not his conclusions. Várady, "New Evidence on Some Problems," n. 158, rejected the method.

231. Berchem, "On Some Chapters of the *Notitia Dignitatum*," p. 147.

232. Jones, *Later Roman Empire*, p. 3:379, table 15.

233. Ibid., p. 1:98. Cf. Stein, *Histoire du Bas-Empire*, p. 1:73, where the *auxilia* are attributed to Diocletian.

234. Jones, *Later Roman Empire*, pp. 2:649–54.

235. Demougeot, *De l'Unité à la division de l'empire romain*, p. 511.

236. Mazzarino, *Stilicone*, pp. 128–29.

237. Cf. table 3.1 data with Boak, *Manpower Shortage*, p. 91.

238. Birley, "Septimius Severus and the Roman Army," p. 78.

Epilogue

1. They are first recorded in a law of 365; *Cod. Theod.*, 8.1.10.

2. Priscus, fr. 8, in *Fragmenta Historicorum Graecorum*. Cf. Sherwin-White, *Roman Citizenship*, pp. 425–68 and passim.

Appendix

1. Osgood and Tucker, *Force, Order, and Justice*, p. 3.

2. Ibid.

3. See, for example, Bell, Edwards, and Wagner, *Political Power*, a compendium of definitions in modern American political science. For a phenomenological study in historical perspective, see Jouvenel, *Power*. For a sociological orientation, see Emmet, *Function, Purpose and Powers*. For an anthropological perspective, see Walter, *Terror and Resistance*, which is a study of Zulu political life under the kings.

4. Morgenthau, *Politics among Nations*, p. 26.

5. Bachrach and Baratz, *Power and Poverty*, pp. 17–38.

6. Ibid.

7. E.g., Dahl, *Modern Political Analysis*, pp. 39–54; Singer, "Inter-Nation Influence"; and Holsti, *International Politics*, pp. 154–58.

8. Dahl, *Modern Political Analysis*, p. 41.

9. For a notable exception, see Bachrach and Baratz, "Decisions and Non-Decisions," where the distinction is made clear, and where it is pointed out that it is noncompliance with the orders of the powerful that imposes on the latter the costs of using force.

10. It does not matter to whom, or to what groups, the "ownership" of the means of security (and the burden of providing the inputs) is attributed. Given full internal control, *all* the resources of a society are available for appropriation by the ruling power, so that societal costs not borne directly by the latter are still costs to it, at least in possible exactions forgone.

11. For the development of the concept of "suasion" and a description of the actual processes resulting from the presence, display, or symbolic application of force, see Luttwak, *Political Uses of Sea Power*. The context is naval, but the theory is generally applicable.

12. Blau, *Exchange and Power in Social Life*, compares power to status but then goes on to treat it as capital—expendable capital. Cf. Parsons, "On the Concept of Political Power," pp. 256–57, where power is defined in terms comparable to money, which also suggests its exhaustion by use.

13. I mean "rational" in the value-free sense of an ability to align ends and means in a way intended to optimize the former, whatever they may be.

14. That is, to the Bachrach-Baratz definition mentioned above.

15. This admittedly excludes from consideration cases in which the opponents seek negative values, for example, glorious martyrdom, as well as cases in which the opponents have no values vulnerable to attack, or at least no values that are attack-worthy.

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Index

Page numbers in *italics* refer to maps, figures, and tables.

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