

ROMAN IMPERIAL GRAND STRATEGY

Publications of the
Association of
Ancient Historians 3

Arther Ferrill

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To Tammy, Jeff, Jenny, Jesse, John, Joan,
Elizabeth and Elizabeth

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Eugene N. Borza
Publications Committee

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PREFACE

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Within the last generation the study of military history has witnessed a major revival, and the new military historians are particularly interested in the use of force in the policy of nations. The best example is Paul Kennedy's magnificent work, *The Rise and Fall of the Great Powers*. Increasingly military historians are beginning to realize that government must balance the needs of foreign policy, economics and grand strategy. Even in the most militaristic states, such as the Soviet Union in the period from 1945 to 1989, leaders have not had the luxury of shaping a perfect grand strategy, one that is completely "rational" in the purely military sense. Always the needs of politics, foreign policy and economics force compromises in military planning, just as, in time of war especially, military requirements drive nations into unholy alliances and drastic modifications of normal budgetary policies.

It is now fifteen years since the publication of Edward N. Luttwak's ground-breaking work, *The Grand Strategy of the Roman Empire: From the First Century AD to the Third*. In what has been called the best book by a non-specialist on Roman history in the twentieth century, Luttwak analyzed the defense policy of the Roman Empire using the vocabulary of modern military studies. His contribution to Roman history has been enormous, and many ancient historians have accepted the broad outlines of his majestic survey of Roman grand strategy. All contemporary discussions of Roman grand strategy begin with Luttwak's book, although the emphasis on the lack of a central mobile reserve in the Early Empire and the creation of one in the Late Empire goes back to Mommsen in the late-nineteenth century. Readers interested in the historiography of Roman strategic studies may consult my book, *The Fall of the Roman Empire: The Military Explanation*.

Despite the influence of Luttwak's book, there have been some important criticisms of it. Not every Roman historian believes that the Emperors had a conscious grand strategy. The approach was narrowly military in many respects, and Luttwak did not take the broad view of grand strategy that he reflects in his later highly theoretical book, *Strategy: The Logic of War and Peace*. Furthermore, the most influential section of his work on Roman grand strategy was the last part of the book that dealt with defense-in-depth. Since

he limited his coverage of Roman history, as his title suggests, to the first three centuries AD, he did not actually treat that part of Roman history in which defense-in-depth was attempted. As every schoolboy knows, the result was disastrous for the Roman Empire in the West.

This survey of Roman imperial grand strategy will inevitably owe much to Luttwak's brilliant insights, but I hope that my approach and many of my conclusions will be found both original and convincing. The recent burst of interest in military history has touched even the study of antiquity, and it is time to reassess the questions of the Emperors' knowledge of military policy, of how they applied what they knew, and of how effective were their efforts in protecting the military integrity of the Roman Empire within the framework of political, diplomatic and economic constraints. Inevitably, the role of personality (leadership or the lack of it) also makes some difference, as does religion, at least occasionally, in both ancient and modern times. In an essay such as this I can devote little space to the role of personality and religion, though I must touch on a few highpoints now and then.

I want to thank Prof. Eugene Borza, who, as President of the Association of Ancient Historians, first suggested this book, and who subsequently provided moral encouragement. Thanks are due, as usual, to Profs. Chester G. Starr and Thomas Kelly, who are always there when I need them. My colleague Fritz Levy read the manuscript and made many helpful suggestions. I am also grateful to the publications committee of the Association of Ancient Historians, whose members made numerous helpful comments.

I

**AUGUSTUS, THE JULIO-CLAUDIANS, AND
ROMAN GRAND STRATEGY**

There can be no doubt that the first Roman Emperor pursued a conscious, albeit changing, grand strategy, and that he left a military legacy that shaped the policies of his successors for centuries. The first and most critical decision Octavian made after gaining control of the entire Empire in the struggle with Antony and Cleopatra was to determine the appropriate size of the Roman army and navy. Even before he resolved the problem of his constitutional position in the state, before he received the name Augustus in 27 BC, he undertook a major military demobilization. It was essential for him to organize the military defense of the Empire under his personal direction. The new grand strategy was strongly influenced by his perceptions of Rome's political, diplomatic and economic needs.¹

The Civil Wars of the Late Roman Republic had generated massive military forces and imposed a heavy burden of conscription on Italians and of taxation on the provinces. The armies and navies that faced one another at the battles of Philippi and Actium were of Napoleonic proportions. By the best modern estimate Octavian deployed at a minimum 16 legions at Actium (with an additional 12 stationed elsewhere in the Empire) and over 400 warships, while Antony and Cleopatra fielded about 19 legions (with another 4 stationed in Cyrenaica) and 300 vessels (with perhaps 200 others at various ports in the eastern Mediterranean).² Altogether the number of men under arms, in the fleet and on the land, must have been at least 400,000, only slightly fewer than the military and naval personnel of France and Germany in the 1880's and 90's and more than that of Great Britain, the Austro-Hungarian Empire, Italy, Japan, and the United States in the same period.³

1. For a recent study with full documentation and bibliography see Kurt Raaflaub, "Die Militärreformen des Augustus und die politische Problematik des frühen Prinzipats," *Saeculum Augustum*, 1 (1987), 246-307

2. See P.A. Brunt, *Italian Manpower 225 B.C.-A.D. 14* (Oxford, 1971), pp. 498-512, and John Carter, *The Battle of Actium* (London, 1970), pp. 200-4.

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The Battle of Actium proved decisive, and Antony's forces surrendered to Octavian after the victorious leader promised them that he would treat them as his own.⁴

Manpower Limits

In the period between 30 and 28 BC Octavian, probably with the help and advice of his friend, Agrippa, made the most fundamental decision in the development of Roman imperial grand strategy. That is, he set the number of legions required to defend the Empire, to pursue his own foreign policies and to retain control over the government. He was operating under many constraints, especially those mentioned above, but also the urgent need to grant some 85,000 discharges, to generate in his subjects a feeling of peace and imminent prosperity, and to free revenues that had gone into heavy mobilization in the period from 49 to 30 BC. Luttwak argues that there were no financial or manpower constraints and that Octavian made his decision "on the basis of a rational scheme of deployment, in which it was the desired level of forces that set the costs, rather than the other way round."⁵

That cannot possibly be true. Conscription had been both difficult and costly. The economy of the ancient Mediterranean had been stretched to the limit. Octavian faced the costs of demobilization (which many veterans demanded) as well as the need to demilitarize Italy and the peaceful, prosperous provinces. The previous two decades had witnessed the constant threat of war and the frequent actual outbreak of war.⁶ The new ruler desperately needed to address the problem of war-weariness, to ease the economic drain of military mobilization and combat, and to free his subjects as much as possible from the sense of crisis and danger.⁷

Octavian decided that he could meet all his military needs with an army of 28 legions. Remember, that was the number he had under his control in 31 BC as he moved toward Actium. What he did in essence was to add all the

3. Paul Kennedy, *The Rise and Fall of the Great Powers* (New York, 1987), p. 203.

4. I. Hahn, "Die Legionsorganisation des Zweiten Triumvirats," *Acta Antiqua Academiae Scientiarum Hungaricae*, 17 (1969), 199-222.

5. Luttwak, *The Grand Strategy of the Roman Empire*, p. 17.

6. Even earlier there had been many problems. See J. Harmand, *L'armée et le soldat à Rome de 107 à 50 avant notre ère* (Paris, 1967).

Eastern Roman Empire, including the new province of Egypt, to his personal sway without increasing the size of the army he had previously maintained for the possession of power in the West alone. The vast riches of the East became available to him at no additional cost in military defense. This efficiency in military costs, combined with political stability and economic growth, permitted the rising standard of living associated with the *Pax Romana*.

It is significant that Octavian's decision about army strength remained in effect for more than two hundred years, from his own reign as Augustus down to the time of Septimius Severus. For this very long period the fluctuation in military might was rarely more than 10%. There was a brief drop, for about a generation, from 28 to 25 legions after the loss of three legions in the Teutoburg Forest in AD 9, but from the time of Claudius to the reign of Commodus the total number of legions defending the Roman Empire was about 30.⁸ Under Septimius Severus it increased to 33.⁹ Clearly this limitation on the size of the cost-efficient Roman army had a significant impact on the development of Roman grand strategy. In a period when the technology of war developed very slowly and produced relatively insignificant increases in offensive or defensive power, the number of troops available for use by the Emperors was critical.

Throughout his reign Augustus made major institutional changes in the army and navy that also survived as a legacy to his successors. He completed the process of professionalizing the military arm of the government, a process that had begun with the Roman general Marius. The two major problems Augustus inherited from the days of the Late Roman Republic were the

7. Some other important works dealing with Roman grand strategy in this period are F. Millar, "Emperors, Frontiers, and Foreign Relations, 31 BC-AD 378," *Britannia*, 13 (1982), 1-23; J.C. Mann, "The Frontiers of the Principate," in H. Temporini, ed., *Aufstieg und Niedergang der römischen Welt*, II, 1 (Berlin and New York), pp. 508-33; Lawrence Keppie, *The Making of the Roman Army* (Totowa, 1984), pp. 191-8; John Wachter, *The Roman Empire* (London, 1987), p. 17; Stephen Dyson, *The Creation of the Roman Frontier* (Princeton, 1985); Graham Webster, *The Roman Imperial Army* (London, 1969); G.R. Watson, *The Roman Soldier* (London, 1969), and my essay, "The Grand Strategy of the Roman Empire," in Paul Kennedy, ed., *Grand Strategies in War and Peace* (New Haven, forthcoming).

8. Webster, *Roman Imperial Army*, pp. 113-4.

9. See E. Birley, "Septimius Severus and the Roman Army," *Epigraphische Studien*, 8 (1969), 63-82; R.E. Smith, "The Army Reforms of Septimius Severus," *Historia*, 12 (1972), 481-500; and J. B. Campbell, *The Emperor and the Roman Army* (Oxford, 1984), pp. 401-14.

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tendency of the armies to promote the political careers and ambitions of their own commanders and the need to provide retirement benefits for veterans, a matter that had never been regularized and had been a source of considerable political controversy from Marius down to Octavian.¹⁰ As a matter of fact, the two problems were interrelated, because the incentive for legionary support of the political aims of their commanders derived from the *esprit de corps* within the armies. This generated great loyalty to the commander. The knowledge that bonuses and benefits after a campaign depended on the commander's ability to secure them from the government (except to the extent that he could fund them through booty) made the troops even more tied to their generals. In that sense the legionary support of the commander's political program was inevitably self-interested.

Augustus addressed these problems by keeping most of the legions under his own command, serving as Proconsul of the major military provinces. Since he could not personally be present with most of the army units, he appointed commanders who served as lieutenants at his pleasure. He was careful to choose men whose loyalty to him was certain, Roman Senators who looked to him for patronage and support subsequent to their legionary commands. Whenever it was necessary to assemble large forces for extensive operations in a military theater of war, Augustus either took command himself (rarely) or appointed members of his own family such as his lifelong friend Marcus Agrippa (who eventually married Augustus' daughter, Julia), or his stepsons, Tiberius and Drusus, or his grandsons Gaius and Lucius Caesar, and toward the end of his reign his grandson Germanicus, who had been adopted by the heir-designate, Tiberius. Even Varus, the feckless leader of the three legions destroyed in Germany, was the husband of a grandniece of Augustus.

By keeping the major military commands under his direct control the Emperor reduced significantly the risk of military rebellion and civil war within the Empire. He further diminished the danger by retaining for himself the right to reward the troops for their service. Late in his reign he actually created a special treasury, the *aerarium militare*, funded by a large grant from his private purse and the continuing income of two special taxes on Roman

10. Lukas de Blois, *The Roman Army and Politics in the First Century Before Christ* (Amsterdam, 1987).

citizens. This institutionalized the system of bonuses and pensions, thereby generally taking it out of the political arena.¹¹

The Emperor also tried, though without complete success, to turn the legions into an all-volunteer force and thus escape the political problems inevitably generated by conscription. He established definite terms of service in the various units of the Roman army: for the legions, 20 years; for the auxiliaries, 25 years; for the navy, 26 years; for the elite Praetorian Guard, 16 years.¹² In addition, a regular annual salary was set for service in the several military units. The result of these reforms was that from the time of Augustus the military and naval needs of the Roman Empire were met by standing professional armies and fleets under the overall command of the Emperor.

The Operational and Tactical Organization of the Army and Navy

Before proceeding to discuss questions of strategy and grand strategy in the Early Roman Empire, it is first necessary to examine the tactical and operational structure of the Roman army. As we shall see, it was Roman superiority at these levels that permitted cost-efficient strategies and grand strategy.

A word about the tricky matter of military terminology is in order. Normally in discussions of ancient military history, the terms “grand strategy,” “strategy,” and “tactics,” have been found adequate to deal with most situations. In the recent jargon of modern military history, however, the tendency is to insert a new term for what Liddell Hart once called “Grand Tactics,” that middle ground between tactics (cavalry tactics, infantry tactics, skirmisher tactics) and the interaction of interdependent tactical units in the execution of a military maneuver that also has strategic significance. Since

11. Suetonius, *Augustus*, XLIX, 2; Tacitus, *Annals*, I, 78; M. Corbier, *L'aerarium Saturni et l'aerarium militare* (Rome, 1974); Webster, *Roman Imperial Army*, pp.42-4; Keppie, *Roman Army*, pp. 145-8.

12. The basic study is G. Forni, *Il reclutamento delle legione da Augusto a Diocleziano* (Milan, 1953); see also P.A. Brunt, “Conscription and Volunteering in the Roman Imperial Army,” *Scripta Classica Israelica*, 1 (1974), 90-115; J.C. Mann, *Legionary Recruitment and Veteran Settlement During the Principate* (London, 1983); and R.W. Davies, “Joining the Roman Army,” in R.W. Davies, *Service in the Roman Army*, edited by David Breeze and Valerie A. Maxfield (New York, 1989), pp. 3-30.

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Liddell Hart's expression did not gain wide currency, Edward Luttwak proposed the term, "operational," in the sequence "strategic, operational, and tactical." Most modern European countries have an equivalent expression, and Luttwak's article, "The Operational Level of War," written after his study of Roman grand strategy, has gained wide acceptance in current military discussions and has been adopted in the basic doctrinal manual of the U.S. Army. Since it is so much a part of current military analysis, and because it is actually a useful term in describing the fighting ability of the Roman army, ancient historians will inevitably begin to use it also.¹³

First, let us examine the tactical organization of the Roman army. It was in legionary heavy infantry that the Romans excelled, and the superiority of their infantry, more than anything else, is what made Roman imperial grand strategy possible. A Roman legion consisted of about 5000 men organized into 10 cohorts. In the Early Empire the Roman infantryman wore a uniform that included a bronze helmet, a mail shirt, the Spanish short sword, a curved rectangular shield, two javelins, and a dagger.¹⁴

The chief tactical unit of the legion was the cohort, organized into six centuries of 80 men. The century was divided into eight squads of 10 men each, who were known as tentmates, since they shared a tent (*contubernium*) on a field campaign and a barracks room in permanent quarters. Each of the six centuries within a cohort was commanded by a centurion, and the centurions were differentiated in rank from senior to junior.

Unlike the other nine cohorts of the legion, the First Cohort had only five centuries (rather than six), and they seem to have been twice as large (160 men rather than 80). The chief centurion of the First Cohort, the *primus pilus*, or "Top Javelin," was the senior noncommissioned officer in the Roman legion (except for Prefect of the Camp, below). He was responsible for the legionary eagle, and all five of the centurions in the First Cohort were considered the *primi ordines*, the "First Rankers." The position of "Top Javelin" was as high as an enlisted man could regularly rise in the legion. Most centurions had at least 15 years of service in the ranks before promotion

13. In German it is *operativ Kriegskunst*. See Edward Luttwak, "The Operational Level of War," *International Security*, 5 (Winter 1980-81) and his comments in *Strategy: The Logic of War and Peace* (Cambridge, Mass., 1987), p. 260, n. 1.

14. The best introductions in English to Roman tactical organization are Keppie, *Roman Army*; Webster, *Imperial Army*; and Watson, *Roman Soldier*.

to the centurionate although some Praetorians were assigned to the legions as centurions after the usual 16 years in the Guard. The rank of centurion generally was more like that of a Captain in the U.S. Army than of a Sergeant. The centurions were the heart of the Roman army.¹⁵

The legionary commander was a Legate (*legatus legionis*); most of these were senatorial aristocrats who had previously held the praetorship, the second highest office in the sequence of offices in the city of Rome. It was not uncommon to move from command of a legion to the governorship of a province. Beneath the Legate in the hierarchy of command came the six Military Tribunes, one of whom was of the senatorial order and the others of the equestrian. Actually the senatorial Military Tribune was second in command of the legion and immediately after him came the Prefect of the Camp (*praefectus castrorum*), who was a former *primus pilus*. Then came the five equestrian Military Tribunes, some of whom went on to serve the government as procurators.

Legions were usually supported in the field by an equal number of auxiliaries (*auxilia*) also organized into cohorts of infantry and wings (*alae*) of cavalry but consisting of light infantry and larger cavalry contingents than those assigned to the legions.¹⁶ Usually there were only 120 horsemen to a legion, used mainly as messengers, escorts and scouts, rather than as a striking force. Normally auxiliary units were made up of non-citizens, whereas only Roman citizens could serve in the legions, but frequently citizenship was awarded discharged veterans of the auxiliary forces. An auxiliary unit also contained some cohorts that combined both infantry and cavalry. Auxiliary forces originally were drawn from the regions in which they were likely to serve and were commanded by their own officers, but as time went by, both conditions changed. Later auxiliary units were often commanded by equestrians. From the beginning auxiliaries were normally drafted, although there were some volunteers.

There is considerable controversy about how the Roman army functioned

15. Keppie, *Roman Army*, pp. 173-80. The classic treatment is A. von Domaszewski, *Die Rangordnung des römischen Heeres*, 2nd ed., Brian Dobson, ed., (Cologne, 1967).

16. G.L. Cheesman, *The Auxilia of the Roman Imperial Army* (Oxford, 1914); D.B. Saddington, *The Development of the Roman Auxiliary Forces from Caesar to Vespasian (49 B.C.-A.D. 79)* (Harare, 1982); and P.A. Holder, *Studies in the Auxilia of the Roman Army from Augustus to Trajan* (Oxford, 1980). See also Jan Beneš, *Auxilia Romana in Moesia atque in Dacia* (Prague, 1978).

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on what we can call the operational level.¹⁷ The famous checkerboard pattern of cohorts forming into a triple line may well reflect standard practice, but one of the most important features of Roman army drill is that the troops were capable of taking many battleline positions, including on occasion even a phalanx formation. Operational flexibility, integrating the heavy infantry of the legions with the light infantry and cavalry of the auxiliaries, characterized the Roman forces. Although the Romans sometimes used deep formations, they also often fought in thin waves of lines, sometimes no more than three deep. This meant that all elements of the army were prepared to deliver and receive firepower (or offensive thrust, although the anachronism, “firepower,” has become standard even in the terminology of ancient warfare). As a general rule, the legions were expected to deliver the crushing blow against the enemy while the auxiliaries protected the flanks and rear and served as skirmishers. Auxiliary cavalry was not often used in the style of Alexander the Great to effect the major breach of the enemy position.

In most armies, particularly ones that use “heavy battalions” or deep formations, such as the Greek phalanx, there is room for relatively weaker troops in the middle of the formations. The best men are stationed front, flank and rear. Those in the middle cannot deliver much firepower, nor as a general rule, do they receive much. Since the weak troops are always the ones most likely to panic and run, in a heavy battalion they are hemmed in by the stronger formations front, flank and rear. But in the Roman army, especially in the legions, there was no place for weak troops at all, particularly when the troops fought in thin waves only three deep.¹⁸

The secret of Roman operational and tactical success was the rigid system of discipline, training and drill supported by Roman society generally. Modern states do not permit their troops to be treated as harshly as Roman soldiers were. Significantly, the extraordinary discipline and training were imposed on the Roman army as relentlessly in peacetime as in war. In a famous speech that Josephus attributes to Titus, son of the Emperor

17. For a discussion of the tactical formations of the Roman army, see Everett S. Wheeler, “The Legion as Phalanx,” *Chiron*, 9 (1979), 303-18, which also contains bibliographical references to most of the modern literature on the topic.

18. Ardant du Picq, *Battle Studies, Ancient and Modern*, reprinted recently in volume II of *The Roots of Modern Strategy* (Harrisburg, 1987), pp. 8-299, is still one of the finest discussions of the Roman army, even though it was written in the 1860's.

Vespasian and eventually Emperor himself, the Roman general reminded his men that the great advantage they had over their enemies was that they trained in peace in order to be ready in war.¹⁹ This led later to the paradoxical advice given by the Late Roman military analyst, Vegetius: “If you want peace, prepare for war.”²⁰

Because the Roman army was so well trained and professional, it always had operational and tactical advantage over its opponents, usually even in the wars against the major states of the eastern Mediterranean. Against barbarian armies Roman forces were invincible, barring stupid mistakes of generalship. In fact, because of their training, Roman armies had at least a 4-to-1 superiority, that is an army of 20,000 Romans could defeat an army of 80,000 barbarians. In logistics, armaments and military engineering the Roman edge over barbarians was immeasurable.²¹

The Roman advantage was especially great in high intensity threats such as conventional battle and siege. Legionary heavy infantry was not as well suited for low intensity, guerilla-type campaigns against the Germans across the Rhine and Danube, who had no urban centers and could take advantage of geography to disperse their forces.²² In such situations the auxiliaries were more useful. Nevertheless, it was this tremendous advantage in operational and tactical maneuver that underlay Roman grand strategy in the Early Roman Empire.

After the victory at Actium Octavian presided over a drastic reduction of Roman naval power. Once the new Emperor gained control of all the Empire, there was no serious naval threat to Rome’s military integrity. Augustus eventually settled on two major naval bases, one near Naples at Misenum and the other at Ravenna. Only 10,000 sailors were detached to each base, under equestrian commanders. Considering the huge manpower needs of the two fleets that faced one another at Actium, the demobilization of the navy

19. Josephus, *The Jewish War*, III, 10, 2.

20. On Vegetius see W. Goffart, “The Date and Purpose of Vegetius’ *De Re Militari*,” *Traditio*, 33 (1977), 65-100; and Arther Ferrill, *The Fall of the Roman Empire: The Military Explanation* (New York, 1986), p. 179, n. 196.

21. On this point Luttwak, *Grand Strategy*, is inconsistent and in fact contradictory. On p. 1 he denies that Roman strength “derived from a tactical superiority on the battlefield,” but on p. 42 he stresses Roman “tactical superiority.” See the review by Zvi Yavetz in *New Republic* (May 21, 1977), 55-7, esp. p. 57.

22. See Luttwak, *Grand Strategy*, pp. 41-2.

permitted vast savings in military expenditure. Indeed, naval power was not terribly important in Roman imperial grand strategy. In some ways the riverine squadrons on the Rhine and Danube, and later the squads operating in the English Channel, served a more urgent military need than the two Mediterranean fleets.²³

The Army and the Spade

All good armies must have the capacity to reshape the terrain they occupy by moving vast amounts of earth. Today that is done with big machines, such as bulldozers or backhoes, but before the Industrial Revolution it could only be done by men and animals. The Romans were masters in the use of the spade. Their ability to dig in gave them an advantage over their enemies and helped to make possible a cost-efficient army. Napoleon said, "In a war of march and maneuver, if you wish to avoid a battle with a superior army, it is necessary to entrench every night and occupy a good position." Wellington wrote, "Had Caesar's *Commentaries* with me in India, and learnt much from them, fortifying my camp every night as he did."²⁴

The Roman army on the march, when there was no immediate high intensity threat, dug a trench nine feet wide and seven feet deep around the encampment. If there was danger of immediate attack, the trench was twelve feet wide and nine feet deep. The excavated earth was thrown up around the trench and made it even deeper. Permanent camps had even wider trenches.²⁵ Remains of Caesar's camp at Gergovia reveal some that were fifteen feet deep, and at Alesia there was a moat 20 feet wide.²⁶ When Crassus cornered Spartacus in the toe of the Italian boot, he dug a trench thirty-four miles long, fifteen feet wide, and fifteen feet deep.²⁷ Other militarily important forms of

23. Chester G. Starr, *The Roman Imperial Navy, 31 B.C.-A.D. 324* (2nd ed., Cambridge, 1960), and, by the same author, *The Influence of Sea Power on Ancient History* (New York, 1989), which has an up-to-date bibliography.

24. Eugene S. McCartney, *Warfare by Land and Sea* (New York, 1963), pp. 102-10, has a chapter entitled "The Spade in the Roman Army," and he provides the quotations from Napoleon and Wellington.

25. Vegetius, *De Re Militari*, I, 24; III, 8.

26. Caesar, *Commentaries on the Gallic War*, VII, 69-89.

27. Plutarch, *Crassus*, X. See A. Ward, *Marcus Crassus* (Columbia, Mo., 1977), pp.89-90.

excavation are sapping and mining, though they are normally used only in sieges. Vitruvius tells us that Caesar's siege of Massilia required thirty mines.²⁸

It would not be an exaggeration to say that the spade was one of the most important weapons used by the Roman army. Its value was felt at all levels of warfare, tactics, operations and strategy. Because of the protection afforded the Romans by their trenches and the capacity to hem an enemy in with the use of the spade, the Roman army was able to make barriers that would otherwise have required a much larger use of manpower. This skill is one of many that relieved the strain on conscription.

Strategy and Grand Strategy Under Augustus and the Julio-Claudians

Luttwak has argued that the grand strategy of Augustus and the Julio-Claudians was a flexible one, based on maintaining mobile army groups for internal and external purposes while relying heavily on client states to serve as buffers in critical areas along part of the Roman frontier. To a certain extent his argument is valid, but in fact from the end of the reign of Augustus it is possible to see the shaping of the grand strategy of preclusive security, the rigid defense of a definable frontier, that so characterizes the military policies of the Emperors of the second century AD.²⁹

There is only one passage in all of ancient literature that provides detailed information about the placement of troops in the Empire. That is the famous section in Tacitus' *Annals* for the year AD 23 under the Emperor Tiberius where the historian tells us that there were 8 legions on the Rhine, 3 in Spain, 2 in Egypt, 2 in the province of Africa, 4 on the Danube (2 each in the provinces of Moesia and Pannonia), 2 in Dalmatia, and 4 in Syria, for a total of 25.³⁰ Since troop placement does normally reveal much about a state's grand strategy, one can conclude that the Roman army was deployed to

28. Vitruvius, X, 16, 11.

29. John Wachter, *The Roman Empire* (London, 1987), pp. 55-7; Keppie, *Roman Army*, 154-5; Ferrill, "Grand Strategy," and *Fall of the Roman Empire*, p. 173, n. 40.

30. Tacitus, *Annals*, IV, 5.

defend a perimeter defined by the Rhine and the Danube on the North, the Syrian frontier in the East, and the African frontier, while 3 legions in Spain and 2 in Dalmatia were stationed in trouble spots where they could also serve as a reserve for use on the frontier.

Yet some scholars have claimed that the troop placement described above was intended as much for internal as for external security.

‘Deployed astride major routes,’ Luttwak wrote, ‘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...providing security against the sudden emergence of unforeseen threats. These threats were primarily internal.’³¹

Everyone concedes an internal security function to the two legions in Egypt, which was too rich and quarrelsome a province to be left without a garrison. The troops in Spain and in Dalmatia are another matter. The pacification of Spain had been long and difficult, and as recently as AD 6-9 there had been a major revolt in Dalmatia, called by Suetonius “the gravest of all our wars since those with Carthage.”³² Tacitus actually describes the Dalmatian legions as serving the double purpose of backing up the legions on the Danube and providing a strategic reserve for the defense of Italy. But clearly there was a frontier on the Danube, and the two legions farther to the rear in Dalmatia were closely linked operationally to the defense of that frontier. As soon as conditions in Dalmatia permitted, those legions were posted to the Danube.

Only in the West, in Spain and Gaul, is there any basis for the view that the grand strategy of Augustus and the Julio-Claudians was based on mobile striking forces aimed as much at the interior as against the Germans. Both Spain and Gaul had been only recently pacified. Although the Romans had occupied Spain since the time of the Hannibalic War, Spain became the Roman Vietnam, with this exception: for the U.S. the ugly experience in Vietnam lasted only about 10 or 15 years and ended in defeat; for the Romans Spanish resistance went on for two centuries. After Augustus finally quashed

31. *Grand Strategy*, p. 18.

32. Suetonius, *Tiberius*, XVI. On Spain see R.F.J. Jones, “The Roman Occupation of Northwest Spain,” *Journal of Roman Studies*, 66 (1976), 45-66; and P. Le Roux, *L’armée romaine et l’organisation des provinces iberiques d’Auguste à l’invasion de 409* (Paris, 1983).

that resistance, it is not surprising that he and his immediate successors retained troops in Spain, just in case.

It is also true that Gaul, though generally loyal to the Romans, remained for some time a potentially rebellious region, and war did break out in AD 21. It was easily suppressed by detachments sent from the Rhine. But the important point is that since the defeat of Varus in Germany, Augustus and Tiberius had regarded the Rhine as Rome's frontier in the West.³³ Significantly, in AD 23, nearly one-third of Rome's manpower was stationed along the Rhine, 8 of the 25 legions. The fact that they were not based in permanent stone fortresses, as they would be later, does not actually make them much more mobile.³⁴

Early in his reign Augustus' grand strategy had been expansive, and there is little doubt that he hoped for conquest in Germany at least to the Elbe. But he was forced by circumstance to abandon that goal, and by his death the Roman frontier in the north was without doubt the line of the Rhine and the Danube. Some concern for internal security in Spain, Gaul and Dalmatia required the holding of five legions in reserve, but the bulk of Roman manpower was committed to the defense of the frontier. Nearly half of the entire Roman army, 12 of 25 legions, was stationed there.

In the East the situation was different.³⁵ Rome's civilized neighbor on the eastern frontier, the Parthians, represented an ever present high intensity threat, though in fact Parthia was more a target than a threat. In a period of less than 20 years, from 53 to 36 BC, the Romans had mobilized three massive invasions of the Parthian Empire. One of them, under Julius Caesar, was aborted by his assassination on the eve of departure. The other two, under Crassus and Mark Antony, were thwarted by the Parthian army. The defeat of Crassus at Carrhae in 53 BC and the expulsion of Antony made the Parthians seem, then and now, more powerful than they really were. Parthians had the capacity to attack and overrun Roman territory in the East, but they were

33. Colin Wells, *The German Policy of Augustus* (Oxford, 1972), despite the ingenious arguments of Josiah Ober, "Tiberius and the Political Testament of Augustus," *Historia*, 31 (1982), 306-28.

34. V.A. Maxfield, "Pre-Flavian Forts and Their Garrisons," *Britannia*, 17 (1986), 59-72.

35. For the eastern frontier see F. Millar, *The Roman Empire and Its Neighbors* (New York, 1965); M.A.R. Colledge, *The Parthians* (New York, 1967); I. Browning, *Palmyra* (London, 1979); and Freya Stark, *Rome on the Euphrates: The Story of a Frontier* (New York, 1966). Benjamin Isaac, *The Limits of Empire* (Oxford, 1990), appeared too late for me to do other than notice it.

never strong enough to conquer and occupy the Roman Empire. Militarily, the main question was whether Rome could conquer and occupy Parthia.

That question remained a vital one despite the defeats suffered by Crassus and Antony.³⁶ Augustus decided to abandon the Roman dream of taking Babylon. Political and economic conditions, particularly in Italy and in the West, required a period of tranquility. Italians had been subjected to the demands of war for too long in the period before Actium. Augustus' own political agenda, his desire to close the doors of the temple of Janus to symbolize the existence of peace, his goal to be a second Romulus and the restorer of Roman society, militated against an expansionist war with Parthia.

So Augustus settled for a defensive system in the East, one sufficient to provide reasonable military security for the Empire, but even with that limited goal the needs of grand strategy in the East were sacrificed to political and diplomatic realities. In the end Roman grand strategy in the East rested on three shaky pillars, legions stationed in Syria, a negotiated settlement with Parthia (19 BC), and a network of client kings that had been created by Pompey the Great and rationalized by Mark Antony. This arrangement was obviously not a purely military defensive system, and in fact it had serious flaws.

The settlement with Parthia required the return of the captives and the standards taken from Crassus. That was merely face-saving. The major concession made by the Parthians was acquiescence in a Roman candidate for the throne of Armenia. Because of the critical geographical location of Armenia, Roman control meant that a Parthian attack on Syria could be outflanked. Armenia also might serve as a base for a Roman invasion of Mesopotamia. Under Augustus and his Julio-Claudian successors Rome and Parthia jockeyed back and forth attempting to dominate Armenia until an arrangement favorable to Rome was made under Nero.

After winning the East at Actium, Augustus was anxious to return to Italy and the West to begin his rebuilding program. He generally accepted the arrangements Antony had made in the East with the client kings. Since this system did presuppose "a hegemonic rather than a territorial structure of

36. On their Parthian campaigns see B.A. Marshall, *Crassus: A Political Biography* (Amsterdam, 1976), pp. 139-72; E. Huzar, *Mark Antony: A Biography* (Minneapolis, 1978); Hermann Bengtson, *Marcus Antonius* (Munich, 1977).

empire,”³⁷ it was inconsistent with Augustus' own vision of world conquest and with the potential power that Rome could exercise directly in the East. Inadequate in theory, it was also difficult in practice, because the royal dynasties in the client kingdoms were volatile and required constant supervision. Although the client kings of the East did recognize the ultimate power of Rome and tended to be loyal, they were expensive diplomatically, economically, and politically. It ultimately proved better, less costly, and less troublesome to eliminate them and assume directly the burden of military defense.

In the most important instances (Judaea, Cappadocia, and Commagene) Augustus or Tiberius eventually simply made the changes by decree. By the time they finally acted, the power of the Roman Emperor was so firmly established that military force was not necessary. Although Caligula and Claudius tinkered with the dynastic politics of the client kingdoms, and restored some of them, those two peculiar emperors followed erratic policies.³⁸ By the end of the first century Rome had removed the client kings in the East and in North Africa.³⁹ They had never been more than a compromise of military needs with political and diplomatic ones.

By the end of Augustus' reign the main lines of Roman grand strategy had been laid out for the next two hundred years. In a message the first Emperor wrote to the Senate he warned against further territorial expansion.⁴⁰ The frontiers of the empire Augustus bequeathed were the Rhine and the Danube in the North, Syria in the East and the vast stretches of the Sahara in North Africa. For the most part, with the exception of legions in Spain and Egypt, Rome's forces were stationed on the defensive perimeter of the Empire, and as time went by in the first century AD, it proved possible to transfer the Spanish legions to that frontier as well.

37. Luttwak, *Grand Strategy*, p. 30. For the client kings generally see David Braund, *Rome and the Friendly King: The Character of the Client Kingship* (New York, 1984). See also Lynn F. Pitts, "Relations Between Rome and the German 'Kings' on the Middle Danube in the First to Fourth Centuries A.D.," *Journal of Roman Studies*, 79 (1989), 45-58.

38. On Caligula see now Anthony Barrett, *Caligula: The Corruption of Power* (London, 1989), and my *Caligula: Emperor of Rome* (London, forthcoming). On Claudius see Barbara Levick, *Claudius* (New Haven, 1989).

39. For Africa see M. Rachet, *Rome et les Berbères, un problème militaire d'Auguste à Dioclétien* (Brussels, 1970); and R. Rebuffat, "La frontière romaine en Afrique Tripolitaine et Tingitane," *Ktèma*, 4 (1979), 225-47.

40. Dio Cassius, LVI, 33.

The age-old criticism of Roman grand strategy, that it required the dispersal of all military forces along the defensive perimeter and allowed no central reserve, is fallacious on at least two main lines. One is the assumption that a mobile central reserve was essential for internal security. That was simply not the case. There was no threat to internal security in the Roman Empire except from the legions themselves or from assassins in Rome. A central reserve, stationed in Northern Italy, would have been a greater focus of political intrigue than legions on the frontier, and it would have contributed to instability.

The other fallacy in the argument for a central reserve is that the Emperor did have at his disposal in Italy, mainly to deal with problems that arose in Rome itself, a relatively large force of military and paramilitary troops. Obviously he needed to be able to use force quickly and decisively in the capital and nearby if the occasion required, and his ability to do that was an important ingredient in maintaining his own authority and the general peace. Augustus did not ignore this urgent necessity.

To meet the military needs of the imperial court the Emperor had available several different forces. The most important was the elite Praetorian Guard. Although it had some Republican precedents, Augustus and Tiberius are the ones most responsible for its organization in the form in which it is best known. Under Augustus it contained nine cohorts of infantry and a few mounted troops. It was nearly as large as a legion, and if it was kept up to paper strength, it may have actually had more men than most of the legions. Augustus retained three of the Praetorian Cohorts in Rome itself, and the others were stationed elsewhere in Italy.⁴¹

Members of the Guard served for 16 years and their pay was eventually three times that of the regular legionaries'. After some experimentation with the command structure under Augustus, Tiberius finally settled on one equestrian Prefect (though some later Emperors preferred two), and the cohorts were drawn together in a camp outside the city. In the first century the size of the Guard was gradually increased to 9,000 men (1,000 in each cohort), a force nearly equal to two legions. The Praetorians, in addition to their higher pay, were distinguished by a special uniform more ornate than the

41. Marcel Durry, *Les cohortes prétoriennes* (Paris 1938); A. Passerini, *Le Coorti pretorie* (Rome, 1939); Keppie, *Roman Army*, pp. 153-4.

legionaries'. One cohort of Praetorians at a time served as a special guard at the imperial palace, armed, but dressed in civilian clothes.

In addition the Julio-Claudian Emperors had their own personal bodyguard, the *Germani corporis custodes*, recruited from Germanic tribes.⁴² The Flavians and their successors used the *equitates singulares* for this purpose. There were also three (later four) Urban Cohorts under the Prefect of the City, serving as the regular police force. In the first century several other Urban cohorts were stationed in particularly sensitive areas, one near Naples, one at Carthage, and one at Lyons (where there was an imperial mint).⁴³ Finally, there was a paramilitary fire brigade, the *Vigiles*, consisting of freedmen serving six year terms.⁴⁴ Organized into seven cohorts, they were spread over the city of Rome and occasionally elsewhere under the command of former top centurions from the legions. The ranking officer was an equestrian Prefect. Although they carried no regular weapons, they did have axes and catapults (for destroying buildings on fire or threatened by fire), and they could be used as a military force, as they were at the time of Sejanus' downfall.⁴⁵ In addition, in an emergency, the Emperors could mobilize the crews of the imperial fleets at Misenum and Ravenna.

The fact is that the Emperor had a powerful military force in Italy to secure his control over the capital. Although the Praetorians later often accompanied the Emperor when he went on military campaign, the Italian forces were not generally part of the system of frontier defense. They did offer sufficient support for the Emperor in Rome to permit him to disperse the legions along the frontier, and in that sense they play an important part in Rome's grand strategy.

One final major point about Roman strategy needs emphasis. The defense policy developed by Augustus and his successors would not have been possible without the great network of roads maintained by the imperial government. It was important to have the capacity to move legions along the frontier to meet military threats as they developed. The concentration of a mass of troops was possible because of the Roman highways connecting the

42. Heinz Bellen, *Die germanische Leibwache der römischen Kaiser des julisch-claudischen Hauses* (Wiesbaden, 1981).

43. Helmut Freis, *Die cohortes urbanae* (Cologne 1967).

44. P.K.B. Reynold, *The Vigiles of Imperial Rome* (London 1926).

45. Dio Cassius, LVIII, 9, 5-6.

several frontiers with one another and with Rome. The highways also served to keep the Emperor in touch with events in the legionary headquarters. To facilitate this, Augustus created the Imperial Post (*cursus publicus*), a highly efficient courier system, making communication with Rome's army as rapid as it could be without benefit of nineteenth and twentieth-century means of electronic transmissions, on average about fifty miles per day, but more than that in exceptional circumstances.⁴⁶

46. H-G. Pflaum, *Essai sur le Cursus Publicus sous le haut empire romaine* (Paris, 1940), and Rose Mary Sheldon, *Tinker, Tailor, Caesar, Spy: Espionage in Ancient Rome* (dissertation, U. Michigan, 1987), pp. 140-50. See also the items she cites on p. 140, n. 1. For a discussion of the rate of march of the troops see H.W. Benario, "Legionary Speed of March Before the Battle with Boudicca," *Britannia*, 17 (1986), 359-62.

II

PRECLUSIVE SECURITY IN THE ROMAN EMPIRE AT ITS HEIGHT

Given the political and economic constraints on troop strength, the military demands of a “rational” or “scientific” grand strategy eventually prevailed throughout the Roman Empire, even in the East. The reason for the theoretical perfection of the Roman defensive system (something almost never achieved in the history of the Mediterranean or of Europe), is that Rome conquered all the civilized world in Europe and in North Africa. Except for barbarians, who could not compete militarily with a united and politically strong Empire, Rome faced no military threats. Because of their primitive social, political, and economic organization, there was no arena of competition--diplomatic, economic or military--where the inhabitants of Free Germany had any chance of overcoming the Romans.⁴⁷

In addition the Romans succeeded in uniting their empire under the ideal of *Romanitas*, even though the empire consisted of many different ethnic, linguistic, cultural, and religious groups.⁴⁸ Cohesive economically and politically, Romans were thus released from the need to maintain internal security by force (with a few minor exceptions) and free to distribute their armies around the outer perimeter of their empire. The Roman army used Latin as its language of command and administration. Contrast this with the situation at the outbreak of World War I in the Austro-Hungarian Empire, the most ethnically diverse empire of modern times (but no more so than the Roman Empire). When the mobilization order went out from Vienna, it was given in fifteen different languages!⁴⁹

47. Luttwak, *Grand Strategy*, pp. 51-126, is at his best in describing this defensive system.

48. See the interesting comments, and some reservations, of Ramsay MacMullen, “Notes on Romanization,” *Bulletin of the American Society of Papyrologists*, 21 (1984), 161-77; D.M. Pippidi, ed., *Assimilation et résistance à la culture gréco-romaine dans le monde ancien* (Paris, 1976). A classic study is J.H. Oliver's edition of Aelius Aristides, *On Rome*, in *Transactions of the American Philosophical Society*, n.s., 43. 4 (1953). See also S.L. Dyson, “Native Revolts in the Roman Empire,” *Historia*, 20 (1971), 239-74; R. MacMullen, “How to Revolt in the Roman Empire,” *Rivista Storica dell' Antichità*, 15 (1985), 67-76.

With frontiers that were territorially definable and geographically rational, Roman leaders adopted the grand strategy of preclusive security that is so famously characterized by the ruins of Hadrian's Wall, a massive system of fortifications stretching all across northern England, from Newcastle to Carlisle. The system of fortresses and walls has been described so well and so often that I shall pass over it very briefly here. Some historians have criticized Roman grand strategy in the second century AD as theoretically flawed, because all forces were dispersed along the defensive perimeter, and there was no central reserve. But no central reserve was needed. The Roman defensive system was adequate to meet all likely threats.⁵⁰

There are two exceptions in the West to the general principle that Roman military strategy was rational, and both resulted from overexpansion. One was the conquest of Britain. Conceived by Caligula and executed by Claudius, the conquest of Britain required the permanent commitment of 10% of all disposable Roman forces (3 of 30 legions) and untold years of effort by some of Rome's best generals and even Emperors.⁵¹ A better solution would have been to strengthen the defenses of the Gallic coast on the Roman side of the Channel. The other example of overexpansion was the conquest of Dacia across the Danube under the Emperor Trajan. Dacia proved to be a dangerous salient along the Rhine-Danube line, and it was the first province to be permanently abandoned (AD 275) by the Romans. Hadrian wanted to quit the region immediately after Trajan's death, but the conquering Emperor had previously settled too many Roman colonists in the new province, and for political reasons Hadrian could not afford to desert them.⁵²

In the East, Roman grand strategy was complicated by the dream of planting legionary standards in Babylon. At the beginning of the second

49. Kennedy, *Great Powers*, p. 216.

50. In addition to Luttwak, *Grand Strategy*, there are good discussions of the Roman walls and fortresses in Webster, *Imperial Army*, pp. 166-220; and Keppie, *Roman Army* pp. 191-198. See also David P. Davison, *The Barracks of the Roman Army from the 1st to 3rd Centuries A.D.* (Oxford, 1989).

51. There have been many books on Roman Britain in the last generation. Four that are particularly good are G. Webster, *The Roman Invasion of Britain* (Totowa, 1980); S. Frere, *Britannia: A History of Roman Britain*, 3rd ed. (London, 1987); A. Birley, *The People of Roman Britain* (Berkeley, 1980), with much information on the army; and P.A. Holder, *The Roman Army in Britain* (London, 1980).

century Trajan invaded Parthia and marched all the way to the Persian Gulf. Even before he died, however, there were serious rebellions in his rear, and his successor, Hadrian, decided to withdraw and consolidate Rome's traditional frontiers. Trajan's annexation of Arabia Nabataea and the extensive frontier fortifications he constructed along the line from Petra to the Gulf of Aqaba were retained, largely because they were genuinely a rationalization of Rome's eastern frontier.⁵³

Under Marcus Aurelius Rome went to war with Parthia again. The co-emperor, Lucius Verus, led a large army east and overran Armenia and Mesopotamia. Both Seleucia and Ctesiphon fell to Roman arms, and the Parthian King Vologeses III agreed to stop interfering in Armenian affairs and to cede territory in northwestern Mesopotamia (Osroene), thereby strengthening the Roman position on the Euphrates.⁵⁴ By the mid-second century three legions had been stationed in Cappadocia, and a clear defensive perimeter developed all along the eastern frontier. Late in the second century (197 AD) Emperor Septimius Severus invaded Parthia again, after severe provocation, and marched to Ctesiphon. Septimius reorganized Trajan's old province of Mesopotamia and garrisoned it with two legions, but the Roman position in Lower Mesopotamia was never very strong.⁵⁵

52. There has been an extensive debate on the importance of the gold of Dacia, but whether it was significant under Trajan or not, the long-range effect was minimal. For the campaign see Lino Rossi, *Trajan's Column and the Dacian Wars* (London, 1971); A. Mackenzie, *Archaeology in Rumania: The Mystery of the Roman Occupation of Rumania* (London, 1986); C. Petalescu, "L'organisation de la Dacie sous Trajan et Hadrian," *Dacia*, 29 (1985), 45-55.

53. F.A. Lepper, *Trajan's Parthian War* (Oxford, 1948). On the Arabian frontier see the various reports on the Limes Arabicus project by S. Thomas Parker in *Bulletin of the American Schools of Oriental Research Supplement*; M. Speidel, "The Roman Army in Arabia," in H. Temporini, ed., *Aufstieg und Niedergang der römischen Welt*, II, 8 (Berlin and New York), pp. 687-730; D.F. Graf, "The Saracens and the Defense of the Arabian Frontier," *Bulletin of the American Schools of Oriental Research*, 229 (1978), 1-26; and S. Thomas Parker, "Romans and Saracens: A History of the Arabian Frontier," *Classical Philology*, 83 (1988), 173-6.

54. A. Birley, *Marcus Aurelius* (London, 1966), pp. 189-96.

55. A. Birley, *The African Emperor: Septimius Severus* (London, 1988).

Troop Deployment, Fortresses, and Walls

A close look at troop deployment in the mid-second century will reveal that Rome did pursue a grand strategy of preclusive security based on the earlier strategies of Augustus and Tiberius. There were some major changes in the placement of the legions, but these were the result of the conquest of new territory on the outer edge of the Empire and a shift in the focus of military threats against Rome. They reveal only a response to new developments and not a basic change in grand strategy. Under Hadrian the Empire was protected by 29 legions and the related auxiliaries. There were three legions in Britain, one in Spain, four along the Rhine, ten along the Danube (including one in Dacia), two in Cappadocia, five in Syria, one in Arabia, two in Egypt, and one in the province of Africa.

What these troop placements show is that the Germanic threat to the Rhine diminished after the crisis under Augustus and Tiberius and that barbarian activities along the Danube became much more menacing. These conclusions are supported by the literary sources that tell of important Danubian wars under Domitian, Trajan, and Marcus Aurelius. It is not altogether certain why barbarian pressure on the northern frontier shifted from the Rhine to the Danube, but the usual explanation is that migrations in Free Germany were the cause. By the second century there was no need to garrison Dalmatia, and only one legion remained in Spain and Africa.

Also by the second century the legions were housed in the famous permanent stone fortresses, whose ruins even today are major tourist attractions. Those fortresses are sometimes seen as defensive bastions, but they were not. They were essentially thin-walled barracks serving primarily as bases for offensive operations in a forward zone. They tended to be near the great walls and frontier fortifications. Even the walls were designed for forward operations. In a pinch they could serve as a barrier for a last-ditch defense, but the real defense was in the army, which was expected to march out against any enemy force moving towards the frontier.

After Julius Caesar completed his famous trestle bridge across the Rhine in ten days, he led his army over it and demonstrated for eighteen days on the Germanic side. Then he withdrew and destroyed the bridge after him. His

purpose was to show the Germanic tribes the technological superiority of Roman military engineering. Romans could not only build a bridge; they could build one so easily that they could destroy it. If they needed another, they would build another.⁵⁶ In a sense Roman fortresses and walls of the second century served the same psychologically intimidating purpose. They were monuments to Rome's vast advantages over the people living on the other side. They were a physical demonstration of the power that might be released by the legions in the field. By planting a wall on the perimeter of their Empire and by building stone fortresses Romans did not move from a flexible grand strategy to preclusive security. Preclusive security was provided by the troops alone; fortresses and walls simply made it clear to everyone exactly what Roman grand strategy was.

The linear defense of the imperial frontier was almost everywhere directed outward from the border provinces. That is certainly true of the earthworks and palisades constructed along the northern frontier where there were no natural barriers. The walls were generally manned by auxiliaries, and the legions remained massed in the fortresses. In Britain, Hadrian's Wall was exceptional in that it was much more massive and built in stone, and legions played a more prominent role in defense of the barrier. The important point is that the fortifications along the line of the Rhine and Danube reveal little concern for an attack from the rear, whereas in Britain there was at least some danger from within the province.

In modern warfare the defender is normally assumed to have a 3-to-1 advantage over the attacker, assuming equal forces on both sides.⁵⁷ Generally that ratio applies even to premodern war, but in the case of the Roman Empire, at least along its northern frontier, the advantage was far greater than 3 to 1, because opposing forces simply were not equal.

Recruitment and Conscription

Manpower needs were the most important limiting factor in the development of Roman grand strategy. When Varus lost three legions at the

56. Caesar, *Commentaries on the Gallic War*, IV, 17-19.

57. Luttwak, *Strategy: The Logic of War and Peace*, p.118.

Battle of the Teutoburg Forest, Augustus is reported to have banged his head against the door and cried out, "Varus, give me back my legions."⁵⁸ It was not a question of money. There simply were not enough volunteers for the army. The Emperor had resorted to conscription during the revolt in Pannonia and Dalmatia and after the tragedy on the Rhine. He even drafted slaves and freedmen, and we are told that he sold an equestrian into slavery because the man had cut off his sons' thumbs to make them unfit for military service.⁵⁹ But the legions of the Roman Empire were basically all volunteer forces, as Augustus and his successors were reluctant to impose conscription, especially on Italians. Conscription was particularly unpopular because the imperial government apparently kept draftees in the service for the full twenty years, rather than discharging them after the crisis was over. In the mutinies that occurred at the time of Tiberius' accession, conscripts from Rome, drafted after the Varian disaster, were among the chief trouble-makers.⁶⁰

The unpopularity of military service among Italians is revealed by statistics based on the study of place names and origins found on inscriptions. From Augustus to Caligula 65% of legionaries were Italians; there was a drop to 48% under Claudius and Nero; and from the Flavians to Trajan a reduction to 21%.⁶¹ After Trajan there were few Italians serving in the legions at all. As early as the reign of Tiberius there was concern that only the rabble and the riffraff of Italy volunteered for service anyway.⁶² Beginning in the first century there was a tendency for the legions to recruit heavily from the parts of the Empire where they were based. The legions stationed in the West enlisted citizens from Spain and Gaul while the eastern forces mustered their recruits from Asia. Many recruits were provincials by birth who were given the citizenship on joining the legions.

As time went by, there was a tendency for the legions to look for volunteers in the immediate vicinity of the great fortresses. Normally between the ages of 18 and 23 at the time of enlistment, only about half of the legionaries lived to receive their bonuses and pensions. There is actually

58. Suetonius, *Augustus*, XXIII.

59. Suetonius, *Augustus*, XXIV-XXV.

60. Tacitus, *Annals*, I, 16.

61. Webster, *Imperial Army*, pp. 107-09; see also the items cited above, n. 12.

62. Tacitus, *Annals*, IV, 4.

some reason, however, to believe that life expectancy among the troops was higher than in the general population, since the men under arms were regularly fed and received medical treatment from the military hospitals.⁶³

Conscription for service in the auxiliary units fell heavily on provincials, especially those in the frontier provinces. Since it was obviously advantageous for non-citizens to volunteer for service in the legions rather than be drafted for service in the *auxilia*, we must assume that there was some special basis of selection for the legions. Illegitimate sons of legionaries (who were forbidden to marry during their term of service) may have been given preference. Possibly those who were found unfit for the legions by reason of height and weight restrictions or for some other physical flaw were drafted into the *auxilia*.

In any event, it is likely that the government often found it difficult to meet military manpower needs. Many compromises led to drastic changes in the makeup of Rome's armies. In some periods, say under Trajan or Septimius Severus, the romance of war attracted recruits. But difficulties with the Germans, such as those under Augustus or Domitian or Marcus Aurelius, offered little scope for glory or booty. It is not surprising that Domitian granted a significant increase in legionary pay. The political decision to exempt Romans and Italians from the burden of conscription changed the social structure of the military but seems to have had little effect on its tactical or operational efficiency.

The Secret Service

Even in the days of the Republic, Roman armies often made effective use of spies and scouts to achieve surprise for their own forces and to deny surprise to the enemy. Caesar's army used spies and scouts (*speculatores* and *exploratores*) to great advantage, although there are some famous instances when Rome's military intelligence failed (Hannibal's invasion, Crassus at Carrhae, etc.). Military intelligence under the Republic, however, was limited

63. Keppie, *Roman Army*, pp. 180-2. See also R.W. Davies, "The Roman Military Medical Service," in Davies, *Service in the Roman Army*, pp. 209-36; and R.W. Davies, "The *Medici* of the Roman Armed Forces," *Epigraphische Studien*, 8, 83-99.

to a tactical, operational and strategic role. Roman armies had ways of securing intelligence, but the central government in Rome maintained no permanent branch of the secret service. As one observer has said,

The Roman Republican government was neither centralized nor institutionalized enough to run an intelligence service efficiently. Furthermore, during the late Republic, especially, no political faction would have allowed so powerful a tool in the hands of its rivals. Republican distrust and political rivalry explain why the Romans did not think in terms of an intelligence service in their early history.⁶⁴

Under the Empire a secret service did emerge, and it carved out an important role in the grand strategy of the imperial regime. Despite some arguments to the contrary, the Roman Secret Service became a highly sophisticated, multi-faceted system.⁶⁵ In the first and second centuries AD, the legionary logistical support branch gradually became responsible for espionage. Grain dealers for the army (*frumentarii*) travelled extensively seeking supplies and gathered much information of interest to the government. The agents were normally recruited by the legions, and they were trained in Rome.

They supervised the requisitioning of supplies and served as couriers, spies, police officers and sometimes even as clandestine assassins. In the East they were known as "revenueurs" (*collectiones*) and in the West as "snoops" (*curiosi*). They could dress as civilians, but they also had a distinctive military uniform for impressive displays of force. Romans throughout the Empire hated them, because they were used, much as the FBI is in the United States, for internal surveillance, although they were organized more along the lines of modern military intelligence units.⁶⁶

The Roman Secret Service has been dismissed as essentially inadequate because its efforts were directed towards the interior rather than against Rome's foreign foes, but the criticism misses the point. For tactical and

64. Sheldon, *Tinker, Tailor*, p. 284.

65. See my essay, "Roman Military Intelligence," forthcoming in Brian McKercher and Keith Neilson, eds., *Military Intelligence* (New York). Sheldon's treatment of Roman military intelligence is excellent, but I believe the system to have been more important militarily, especially in the broader realm of grand strategy, than she does.

66. In addition to Sheldon, see William Sinnigen, "Origins of the *Frumentarii*," *Memoirs of the American Academy in Rome*, 27 (1962), 211-24; and, by the same author, "The Roman Secret Service," *Classical Journal*, 57 (1961), 65-72. See also F. Dvornik, *The Origins of Intelligence Services* (New Brunswick, 1974).

operational intelligence the legions had their own spies and scouts. There was no need for Roman spies to spend time locating barbarian arsenals and centers of manufacturing, because there was probably not a single armaments plant in all of Free Germany.

Internal surveillance was actually the best strategic use for the Roman Secret Service. Because all the troops were stationed along the frontier (except for the garrison of Praetorians and other paramilitary units in Rome) internal surveillance was an important part of Roman grand strategy. A small, highly cost-effective group of Secret Agents, probably only about 200 *frumentarii* altogether, was sufficient to free the Emperors of the need to deploy troops inside the Empire. Since the manpower problem was great, this Secret Service contributed mightily to the overall defense of the frontiers. As we shall see, it was greatly expanded in the Late Empire.

Logistics

The Roman grand strategy of preclusive security was buttressed by a marvellous system of logistical support for the military forces. Rigid perimeter defense required that the troops be well supplied on the frontiers and that movement of men and supplies along the frontier highways be simple and easy. The Roman system of supplying food, arms, and armor was as advanced as any system would be down to the nineteenth century of our era, and it served, alongside the monuments of Roman military engineering, as an instrument of psychological warfare, intimidating Rome's barbarian enemies by its obvious superiority over anything they could ever hope to achieve.⁶⁷

Perhaps the best example of Roman logistical strength comes from an incident during the Late Empire in the struggle between Constantius II and Julian (later known as the Apostate). When Constantius moved to strike down Julian in the West, he ordered his agents to collect 3,000,000 bushels of wheat on the borders of Gaul and an additional 3,000,000 along the route of the

67. A book on Roman logistics is desperately needed. In the meantime see the dissertation of John P. Adams, *Logistics of the Roman Imperial Army: Major Campaigns on the Eastern Front in the First Three Centuries AD* (dissertation, Yale U., 1976).

Emperor's advance from the East. As one of the leading authorities on the barbarians of the fourth and fifth centuries has said, "When an army of northern barbarians undertook a campaign, its leaders did not think in terms of millions of bushels of wheat."⁶⁸

The full complexity of the Roman logistical system is only now becoming known. In Europe in the last few years a group of scholars has formed a "Roman Military Equipment Research Seminar," and their work is revealing much about Roman arsenals. One thing is certain: the Roman system was highly sophisticated. During the Principate the manufacture of arms was left to private industry and to the legions themselves. There were *fabricae* (imperial armories) in the legionary fortresses where some arms were manufactured and others repaired.⁶⁹

Vegetius said that the legions were essentially self-sufficient. They had their own carpenters, wagon-makers, construction crews, and workshops for making bows, shields, helmets, and "all sorts of weapons."⁷⁰ There is also a legal document defining those legionaries who were *immunes*, free from fatigue duty, and the list mentions most of the craftsmen, so their duties were somewhat prestigious.⁷¹ Although most of the production of weapons was carried out within the army, there were some civilian craftsmen producing military equipment under the Principate.⁷²

The grain supply for the legions was controlled centrally even in the Principate.⁷³ In the first century the Emperor Domitian built a headquarters building for the *frumentarii* in Rome. It has been excavated in the foundation of the church of St. Stefano Rotondo within a short walk from the Colosseum.⁷⁴ Although the grain agents were considered a part of the army

68. E.A. Thompson, "Early Germanic Warfare," *Past & Present*, 14 (1958), 18.

69. M.C. Bishop, "The Military *Fabrica* and the Production of Arms in the Early Principate," in M.C. Bishop, ed., *The Production and Distribution of Roman Military Equipment* (Oxford, 1985). See also M.C. Bishop, "The Distribution of Military Equipment within Forts of the First Century A.D.," *Studien zu den Militärgrenzen Roms*, III (Stuttgart, 1986), pp. 717-23.

70. Vegetius, II, 11. For Roman weapons generally see H.R. Robinson, *The Armour of Imperial Rome* (New York, 1975).

71. Watson, *Roman Soldier*, pp. 76-77, based on Digest, L, 6, 7.

72. J.C. Coulston, "Roman Archery Equipment," in M.C. Bishop, ed., *The Production and Distribution of Roman Military Equipment* (Oxford, 1985), pp. 220-366.

73. Alfons Labisch, *Fruentum commeatusque: Die Nahrungsmittelversorgung d. Heere Caesars* (Meisenheim, 1975)

74. Sheldon, *Tinker, Tailor*, p. 166, n.10.

and continued to be carried on the legionary roles where they were mustered, they were under a central chain of command. Serving both as spies and requisition officers, the *frumentarii* were heavy users of the state roads and the *cursus publicus*. In 218 the Emperor Macrinus, after suffering defeat at the hands of the Severans, fled in disguise as a *frumentarius*, and no one questioned his use of the imperial post as he attempted a getaway.⁷⁵ In those areas where the Roman taxes were in kind (usually grain) rather than in coin, the *frumentarii* served as tax collectors, and in the third century, when the coinage system collapsed, their duties extended over the Empire, insofar as the Emperor had authority throughout the Empire.

There was no institutionalized supply system even vaguely similar to this one in any of the barbarian tribes of Free Germany. Because of the logistical support system of the Roman army the troops were well fed and well housed. They could devote themselves to training and drill, and when they had to move, their equipment and supplies moved with them. More likely, as a matter of fact, if the legions moved within the territory of the Empire to back up other forces along the frontier, they could rely on the depots of the regions on their route. Control of the interior lines within the Empire is another major advantage Rome's forces had over invaders from without.

Military Engineering

Roman military engineering contributed greatly to the tactical superiority of the army and helped to make Rome's cost-efficient grand strategy possible.⁷⁶ In engineering Rome drew on several different sources: the Near East, Greece and Macedonia in the Hellenic and Hellenistic periods, the Carthaginians, and the Etruscans. In addition Romans contributed many advances of their own. Fortresses, walls, and highways are among the most famous monuments of Roman military engineers, but there are other important features perhaps not so well known.

One was the onager, a Roman invention that many regard as the

75. Dio Cassius, LXXIX, 39, 2-3.

76. See J.G. Landels, *Engineering in the Ancient World* (Berkeley, 1981); and L. Sprague de Camp, *The Ancient Engineers* (New York, 1974).

characteristic catapult of ancient warfare. It was in fact a late invention, dating to the first or second century AD. The onager (literally, “jackass”) was a one-armed stone thrower, propelled by a torsion skein, that exploded in a vertical plane against a padded stop. At the end of the arm was the spoon or sometimes a sling that held the projectile. It was essentially a form of light artillery. Romans excelled in field artillery, mounting traditional light catapults of the crossbow type on wheels. This did not always work well because the recoil of the traditional catapult was too great for light mountings. Larger catapults were also in use, but normally Roman armies did not move with the fully constructed versions, because they would have been too bulky. Instead, they transported the skeins, slings, metal fittings, and other parts that could not be easily made in the field, but the huge frames were often constructed from trees on the spot, as the siege or battle began.⁷⁷

Besides artillery, Roman engineers were capable of many other feats. The rampart at Masada is a famous example, but not the most impressive. In the war against Sextus Pompey in the 30's BC, Agrippa built a training area for his inexperienced fleet by joining Lake Lucrinus with Lake Avernus, which was a half mile further inland. He then joined both of them with the Bay of Naples. He could use the deep Lake Avernus for anchorage during storms and Lake Lucrinus for exercises. His engineers then invented a collapsible tower for missile troops. It was possible to raise this tower quickly when an enemy approached. His engineers also invented a grapnel that could be hurled from a catapult to catch the rigging of another ship and haul it in close for boarding.⁷⁸

Vitruvius devoted several chapters to military engineering.⁷⁹ When Trajan fought the Dacians, his engineer, Apollodorus, built a great bridge across the Danube, the largest permanent bridge in antiquity.⁸⁰ Its piers were made of square stone, 150 feet high, 60 feet wide, set at a distance of 170 feet apart. This feat was done when the river was high, the current swift, and the bottom muddy. Another engineer, Athenaeus the Mechanic, wrote a treatise

77. The best books on ancient artillery are E.W. Marsden, *Greek and Roman Artillery: Historical Development* (Oxford, 1969); and *Greek and Roman Artillery: Technical Treatises* (Oxford, 1971).

78. Dio Cassius, XLVIII, 50; De Camp, *Engineers*, pp. 227-28.

79. Vitruvius, *On Architecture*, X.

80. Rossi, *Trajan's Column*, p. 183.

about siege engines, flying bridges, and other devices and considered the possibility of using them on ships. Heron wrote about siegecraft and detailed several designs for catapults, including a few inventions of his own.⁸¹

Despite some remarkable advances Frontinus was probably correct when he wrote that it was not necessary to discuss engines of war, since, according to him, there was no more room for improvement. They had reached their scientific limit.⁸² This attitude reflects the obvious superiority that Romans had over their opponents, especially the tribes of Free Germany, and the fact that Romans probably had gone about as far as they could go with the technology of antiquity. The introduction of gunpowder and the Industrial Revolution would eventually take warfare further than the Romans could, but it really was not until the nineteenth century that technology advanced the art of war dramatically beyond Roman reach. Rome's catapults were extraordinarily impressive. Large catapults throwing heavy stones had a range of less than 200 yards, but dart throwers might achieve 600 to 800 yards. Napoleon's artillery at Waterloo could do no better.⁸³ Modern catapults have not exceeded 500 yards, but experience with a trireme recently built in the Aegean suggests that we do not yet understand the techniques used by ancient warriors to achieve maximum capability.

In military technology the Romans had a distinct advantage over all their opponents, especially the barbarians, but even the Parthians and the later Persians also. One thing that made the Romans superior was that they could project their engineering superiority forward, to the frontiers and beyond, as it was needed. The ability to deploy military engineers along the vast edges of their empire, to build roads, bridges and artillery, made them more sophisticated than modern armies would be until the nineteenth century. The barbarians of Free Germany were simply incapable of competition in the area of military technology. This made the strategy of preclusive security a reasonable option for Rome.

81. De Camp, *Engineers*, pp. 255-63.

82. Frontinus, *The Stratagems*, III, Preface.

83. See my discussion of Waterloo in *The Origins of War* (New York, 1985), pp. 215-23.

Siege Warfare

One of the backbones of Roman military superiority was the dexterity of the army in the art of the siege. Skill in the siege requires intricate knowledge of the defensive and offensive branches of siege warfare, and the Romans, unlike the barbarians, were masters of both. The combined arms of the legions and the *auxilia*, and the use of ancient artillery, made the Roman army superb in sieges.⁸⁴

On the offensive, Romans were able to take any fortified site. The siege of Masada in the first century is a famous example. One authority has interpreted that siege as an act of psychological warfare, “the exceedingly subtle workings of a long-range security policy based on deterrence.”⁸⁵ But Romans were usually not quite as sophisticated or devious as that, even if their actions often led to that result. At Masada the commanding officer, Flavius Silva, avoided a strangulation siege and the risks of simply storming the mountain stronghold by relying on the military engineers to build a rampart 675 feet long and 275 feet high. It supported a stone platform that was 75 feet high and 75 feet wide. When it was finished, the army simply moved in a straight line directly along this assault embankment against the walls of the hilltop fortress.

General Silva operated under at least one constraint: he might be replaced. Roman generals normally served relatively short terms and they wanted the glory of success as quickly as possible. At Masada, he was doing what he had to do. A strangulation siege might have taken too long, especially since the defenders had ample supplies of food and water, and direct scaling of the walls would have been much too costly in lives. So Silva used his engineers, did the job in a hurry, and won his victory at little cost.⁸⁶

84. A book on Roman siege warfare is desperately needed. One of the mysteries of our day is that Vegetius, who was one of the most popular authors of the Middle Ages and Early Modern Europe, is now readily available in only one edition (1767) in English, reprinted in Major Thomas R. Phillips, *Roots of Strategy* (Westport, 1982), pp. 73-175, and that one does not contain a translation of the section of his work on sieges. See also Geoffrey Lester, *The Earliest English Translation of Vegetius' De re militari* (Heidelberg, 1988).

85. Luttwak, *Grand Strategy*, p. 3.

The power of the army in Parthia is actually more instructive. Under Trajan, Marcus Aurelius, and Septimius Severus the Roman army was not daunted by Parthian fortifications. Ctesiphon and Seleucia could not be defended against the Romans in the field. Even in the Late Empire, when Julian the Apostate led his abortive invasion of the Neo-Persian Empire, the Persians were not able to prevent the taking of Ctesiphon simply by relying on its defenses. Julian finally decided not to attack the city only because the Persian field army remained at bay, and the Roman Emperor could not pin his own force down in a siege deep within the heart of enemy territory.⁸⁷

The Roman advantage in the offensive branch of siege warfare was rarely needed against barbarians in the days of the Principate, because there were no great urban centers in Free Germany, and barbarians almost never concentrated their forces within rapidly constructed field fortifications. The best known exception came under Trajan during the Dacian Wars against Decebalus, but Romans did eventually destroy his fortifications, and Trajan's column in Rome clearly illustrates Romans taking at least one by direct storm. Equally important is the fact that Trajan advanced slowly against the Dacians, establishing garrisons, strongholds, and supply bases. Although he was not able to break through the Iron Gate as quickly as he had hoped in the First Dacian War, he never had to give up any ground he had previously occupied.⁸⁸

The contrast between the Roman way of war and that of Alexander the Great is instructive. Romans moved more slowly. Alexander relied mainly on the powerful offensive thrust of his field army and thought constantly in terms of moving ahead rapidly, in search of the enemy's main force. When he had to slow down, as in northeastern Iran, he began to face problems of morale in an army that was based on the *Blitzkrieg*.⁸⁹ Romans concentrated on fortifying and keeping the territory they gained even if they lost a major engagement in the field. Unlike Alexander's forces, Rome's main strength was always in the rear of its advancing armies, so that a defeat for the legions

86. The classic work is Y. Yadin, *Masada* (London, 1966), but it should be read with care. See also W. Eck, *Senatoren von Vespasian bis Hadrian* (Munich, 1970), and Chester Starr, *The Roman Empire 27 B.C.-A.D. 476: A Study in Survival* (Oxford, 1982), p. 121.

87. Ferrill, *Fall of the Roman Empire*, pp. 52-6.

88. Rossi, *Trajan's Column*.

89. See my discussion of Alexander as General in *The Origins of War* (New York, 1985).

normally had only an operational and tactical significance rather than a strategic or grand strategic one. In this sense Roman skill in defensive siege warfare was an important part of Roman grand strategy.

The Civilian Population

When barbarian tribes moved against the Roman frontier, especially in the Late Empire, they often migrated as a nation, transporting men, women, and children, as well as domesticated animals. All males capable of bearing arms were expected to do so, but the presence of so many non-combatants on the field was sometimes a serious handicap. The Roman state, heir to the political traditions of the Near East and Greece, was able to make much more effective use of its manpower in highly specialized military occupations.

On the other hand, there was an enormous civilian population in the Empire, usually estimated at around 50,000,000 inhabitants. That was equivalent to the modern estimate of the population of all Europe in the year 1500 AD, at a time when Early Tudor England had a population of only 2-3,000,000.⁹⁰ Under the Principate citizens and subjects were forbidden to bear arms, and a tiny fraction of the total population, about 300,000 men, bore the entire burden of military defense for the rest of the inhabitants. By historic standards this is an extraordinarily low percentage of men under arms and therefore highly cost-efficient.

But it has other important implications as well. There is no way to estimate the Gross National Product of the Roman Empire in the second century AD, but it was obviously far greater than that of any Germanic tribe or even of combinations of tribes.⁹¹ The Roman GNP was also infinitely larger than that of the Parthians. In that sense the civilian population contributed mightily to Roman military superiority, because it was able to finance the costs of the Roman army without great strain on the general economy. Most economic historians believe that the Roman GNP grew throughout the first and second centuries AD, mainly because of productivity and population increases, and the military did not sap the fruits of Roman

90. Kennedy, *Great Powers*, p. 4.

91. See Keith Hopkins, "Taxes and Trade in the Roman Empire (200 BC-AD 400)," *Journal of Roman Studies*, 70 (1980), 101-25.

economic growth.

In the Roman Empire we find a vast population encircled by a relatively small army providing military security for the interior. The Empire has been compared to an egg shell, the hard exterior of the frontier defenses around the soft and desirable cities and farms of the inner mass. In the event of a breakthrough on the frontiers, the cities of the interior were easy targets. Most were unwalled under the Principate. Civilians in the Empire enjoyed a relatively high standard of living and a security of life and property that the people of Roman Europe would not see again until the nineteenth century, when the Concert of Europe brought a hundred years' peace after the Napoleonic Wars.⁹² When Edward Gibbon wrote that "the condition of the human race was most happy and prosperous" in the second century, he was probably right, and the happiness and prosperity owed much to the effectiveness of the Roman army and of Roman grand strategy.

Wherever the Romans went, they brought with them their civilization. As Seneca said, "Whomever we conquer, we occupy."⁹³ Because Roman civilization was so vastly different from that of her barbarian neighbors, the defense of rigid frontiers was Rome's only option. In that sense preclusive security was a "natural" or "scientific" grand strategy. It might have been possible to maintain a central reserve, had it been necessary, but the advantages of demilitarizing the interior of the Empire were also great. As long as the Emperor could retain control of the frontier armies while governing from the interior, it was actually better to avoid the risks of a major military force inside the Empire. As events proved in the first century, even the relatively small Praetorian Guard stood ready to interfere in politics to its own advantage. A major army stationed in northern Italy would have destabilized Roman politics even further.

92. Three good recent surveys of Roman imperial civilization are Colin Wells, *The Roman Empire* (Stanford 1984); Starr, *Roman Empire*; Wachter, *Roman Empire*.

93. Seneca, *Ad Helviam*, VII, 7.

The Military Budget

In the struggle of the modern powers, from 1500 to the present, military costs have been an important factor in the outcome. Despite the gold and silver of the New World, Spain was ultimately unable to bear the costs of the Habsburg-Valois conflict, and France's bid for supremacy culminated in ruinous expenditures under Napoleon. Relative economic strength, or lack of it, had much to do with the defeat of German ambitions in Europe from 1870 to 1945, and economic weakness has contributed substantially to the present Soviet policies in Eastern Europe.

It is by no means inappropriate, then, to look at the economic basis of Roman conquest and defense. Relative economic strength may not be determinative, but it is important. Although precise figures are impossible to attain, there is no doubt whatsoever that Rome's economic strength relative to that of the barbarian tribes, individually or as a whole, was so enormous as to be off the scale. In the East, Parthia could probably be put on the scale, but the Mesopotamian kingdom would be many hundreds of percent behind Rome by almost any measurement--total GNP, population, tax revenues, standing military forces, expenditures, agricultural productivity, manufacturing, etc. Perhaps, because of Parthian links with the Orient, foreign trade might be an exception, but Rome had an active trade with India by way of the Red Sea in the days of the Principate.

Rome had become so strong that it was not necessary to plan for defense of the Empire within the usual context of a balance of powers. There simply was no power in the North or in Africa to balance against Rome's, and the arena of diplomatic activity in the East against Parthia focussed only around domination of Armenia. That left Rome free to devise a grand strategy unencumbered by cost or by diplomacy.⁹⁴

In some ways, then, it was all the more remarkable that Rome's military defense costs were so low relative to the size and economic strength of the Empire. This made it possible for the government to function effectively on

94. On the Roman frontier in North Africa see Brent Shaw, "Fear and Loathing: The Nomad Menace and Roman Africa," in C.M. Wells, ed., *Roman Africa: The Vanier Lectures 1980* (Ottawa, 1982), pp. 29-50. The classic study is R. Cagnat, *L'armée romaine d'Afrique et l'occupation militaire de l'Afrique sous les empereurs* (New York, 1975), reprint of 1913 edition.

a relatively low tax base. In recent years two scholars working independently have arrived at very nearly the same estimate of annual expenditures in the Roman Empire during the second century--about 800,000,000 sesterces.⁹⁵ In my opinion this is too low because, while it is based to a certain extent on a relatively reliable estimate of Roman military expenses, it also rests on the less reasonable assumption that military expenses constituted about one half to 60% of the annual Roman budget.

Still, there is general agreement on the cost of the armed forces, and we should begin there. The annual cost of a legion in the Late Republic has been estimated at about 6,000,000 sesterces.⁹⁶ In the second century AD, making allowances for the salary increase allowed by Domitian, expenses for a legion went up to 9,000,000 sesterces.⁹⁷ Thirty legions altogether add up to 270,000,000. If there were as many auxiliaries as there were legionaries, and the auxiliaries were only paid half as much, we have another 135,000,000. If there were 30,000 men in all the fleets, and they were paid at the same rate as the auxiliaries, add 27,000,000. Another 50,000,000 would take care of the Praetorians, and the Urban Cohorts probably cost about 15,000,000. The grand total for military expenses is about 500,000,000.⁹⁸

My guess is that these estimates are about right, though probably the total was slightly higher, simply because there were almost certainly some costs we do not know about. On the rough total there is general agreement, though there is room for minor differences on points of detail. I seriously doubt, however, that Roman military expenditures required as much as 60% of the total annual budget. This estimate is based on figures for modern European states before the Industrial Revolution. But surely their military expenses were relatively higher than those of the Roman Empire.

Modern European states were forced by geography and their own aspirations to survive with the threats of a balance of power. That means that they faced high intensity threats, often on several frontiers at one time.

95. Starr, *Roman Empire*, pp. 86-89; and Keith Hopkins, "Taxes and Trade in the Roman Empire (200 BC-AD 400)," *Journal of Roman Studies*; see also the review article by P.A. Brunt, "The Revenues of Rome," *Journal of Roman Studies*, 71 (1981), 161-72.

96. Michael Crawford, *Roman Republican Coinage* (London, 1974), discusses the evidence.

97. Suetonius, *Domitian*, VII.

98. The figures above come mainly from Starr, whose estimates are easier to deal with than Hopkins' and equally reliable. Starr does not allow enough for the Praetorians, who numbered about 10,000 in the second century, rather than 4,500.

Habsburg Spain in the sixteenth century was challenged by the Ottomans in the Mediterranean, by the Low Countries, by France (in Italy and elsewhere) and by England. Seventeenth-century France was confronted by the Habsburgs in Spain and in the Austro-Hungarian Empire as well as by England, and occasionally, other powers. In the eighteenth century the entry of Russia and Prussia into balance of power politics exacerbated international tensions and led to higher expenditures. In the face of these high intensity threats military costs skyrocketed in times of outright war, but even in peacetime the dangers remained in a state of relatively high intensity.

Rome's situation in the second century AD was uncomplicated by comparison. There was no high intensity threat to Rome except very infrequently along the line of the Rhine-Danube and in Parthia. Neither area posed such a challenge to Rome, even when the menace reached a high intensity level, that it caused concern for the military survival of the Empire as a whole. The leaders of modern European nations have been forced to worry about survival in peace as well as war. It seems unreasonable, then, to assume that the Roman military budget was 50 to 60% of expenditures (unless ancient military costs were relatively higher than those of Early Modern Europe). Something in the neighborhood of 30% makes more sense. That would leave us with an annual budget of about 1,500,000,000 sesterces.⁹⁹

One of the interesting features of Roman *military* spending under the Principate is that there were not wide fluctuations between wartime and peacetime costs. In modern Europe from the sixteenth century to the present, wartime spending often goes up many times higher than peacetime spending, and governments must finance war with heavy taxation and borrowing. In many cases in modern times money has been more difficult to find than victories on the battlefield (though, in fact, the lack of money is what has often contributed to defeat in the field).

It is likely that the Roman imperial government spent more money on military forces in war than it did in peace, but one unusual feature of Roman

99. I believe that we do not yet have a good grasp of Roman expenditures in areas such as capital construction (which could be expensive), basic maintenance and repair of governmental facilities, and the public games. Under Caligula and Claudius, two aqueducts, the *Anio Novus* and the *Aqua Claudia*, cost slightly more than 300,000,000 sesterces. See J.P.V.D. Balsdon, *The Emperor Gaius (Caligula)* (Oxford, 1934), pp. 174-75.

grand strategy is that manpower was only very rarely increased in war. Increases in manpower are expensive, because they require concomitant increases in matériel and supplies. The number of legions defending the Empire remained remarkably constant, regardless of war or peace. In modern Europe nations regularly increase their military forces dramatically in time of war, but Rome maintained a standing army capable of meeting military threats without significant reinforcements. It is possible that unit strength was allowed to fall in peacetime and that legions were brought up to strength in war, but, whether that happened or not, it is very unusual in the history of warfare for a nation to deploy in war only those units that it maintains in peacetime. This fact, perhaps more than any other, illustrates the efficiency of the Roman imperial army. The army contributed substantially to keeping the costs of government down, and that helps to explain the remarkable economic prosperity of the second century AD.

Roman Grand Strategy--Policy or Accident?

One of the main controversies raised by Edward Luttwak's book on Roman grand strategy is whether or not imperial military policy was conscious. Luttwak argued strongly that it was, and many reviewers countered equally strongly that Roman military policy arose on an *ad hoc* basis without any deliberate planning. Rome simply stumbled into its frontiers. Or, to put it less polemically, the argument is that Rome had no frontier policy, that it dreamed of world conquest and stopped only when it had to. Some have argued that Roman policy developed out of pragmatic solutions to immediate problems as they arose and that there was no consistent grand strategy.¹⁰⁰

A point in favor of Luttwak's detractors is the fact that Rome under the Principate had no Office of Defense Planning or even a Roman General Staff. There is no evidence that grand strategy was in the purview of any official organ of the government or of the army.¹⁰¹ If there was a grand strategy, it

100. See above, n. 7. See also Isaac, *Limits of Empire*, pp. 372-418.

101. F. Millar, *Britannia*, 13 (1982), 6: "If the Emperor possessed any secretarial staff specifically for the conduct of frontier policy or diplomacy, all trace of it has disappeared."

must have been developed and pursued at the imperial level. On the other hand, it is unlikely that any Emperor ever planned a military campaign entirely alone in the seclusion of his private chambers. Every Emperor had senatorial and equestrian advisers, and discussions of military and diplomatic matters would have been frequent for all Emperors. There are virtually no reigns when conditions were so quiescent that an Emperor could have ignored military matters altogether. Every Emperor from Augustus to Septimius Severus faced military and frontier problems.

Considering this fact, it is therefore also likely that most Emperors had occasions to discuss the frontiers in the context of grand strategy. Obviously, some of them were more interested than others, just as some American Presidents have been more interested in military policy than others. Millard Fillmore may not have known what America's grand strategy was, but there is a sense in which America had one whether the President knew about it or not. When a frontier problem arose, it inevitably generated discussions of policy, and there is every reason to believe that was true even in antiquity.

Nor is it necessary to believe that only the conquering Emperors were interested. Hadrian was every bit as concerned with grand strategy as was Trajan. Tiberius, who was strongly opposed to the expansion of the Roman frontiers, had as good a grasp of Roman policy as Claudius did, undoubtedly even better. Actually, there is no reason to believe that Roman Emperors were ignorant of Roman grand strategy, because it was basically very simple.

It is true that some Emperors were tempted to work up a frenzy of public support for expansion. Caligula, Claudius, Trajan, and Septimius Severus were particularly culpable in that regard, and their efforts in Britain, Dacia, and Parthia were counter-productive. But most Roman Emperors were remarkably conservative about overexpansion. Since their attitudes ran in opposition to public opinion, they must reflect several important realities. One was that the Emperors were normally required to lead the invasions, and absence from Rome was not always appealing to them, sometimes for personal and sometimes for political reasons. Another was that large scale campaigns inevitably created popular heroes, and Emperors were always reluctant to do that. But the most important consideration must have been, despite the lack of literary evidence to support the speculation, that the Emperors knew the manpower limitations imposed by an all-volunteer army

committed to the defense of the frontiers.

In the end, whether by accident or design, the grand strategy of preclusive security worked well for the Roman Empire in the first and second centuries AD. Edward Gibbon said it perhaps better than anyone else: “In the second century of the Christian Æra, the empire of Rome comprehended the fairest part of the earth, and the most civilized portion of mankind. The frontiers of that extensive monarchy were guarded by ancient renown and disciplined valor.”¹⁰² And so they were.

102. *The History of the Decline and Fall of the Roman Empire* with Introduction, Notes and Appendices by J.B. Bury, Vol. I (London, 1909), p. 1.

III

DEFENSE-IN-DEPTH: FROM THE THIRD CENTURY TO THE FALL

In the early third century Septimius Severus increased Roman troop strength by 10%, to 33 legions. Two of the 3 new legions were stationed in his recently conquered territory in northern Mesopotamia, and one was garrisoned in Italy, increasing the Italian troops to about 30,000 men altogether. Despite this military build-up, his successors had considerable difficulty maintaining political stability. The later Severans were not an impressive lot, and their regime came to an end in 235 AD with the murder of Severus Alexander and his mother in a military mutiny on the Rhine. This was the beginning of a dismal period in Roman history, sometimes called the Age of the Barracks Emperors.

The Barracks Emperors and Elastic Defense

Rome was thrown into the turmoil of a fifty-year-long civil war which deeply involved the legions in major campaigns in the interior. As the military became directly involved in politics, frontier defenses inevitably collapsed, and barbarians frequently entered the Empire, sometimes with devastating effect. In the period from 235 to 284 there were about 20 Emperors, and only two of them died a natural death. At one time in the middle of the century the Emperor in Rome governed only Italy and part of North Africa; the rest of the Empire was in the hands of rebels.¹⁰³

As the grand strategy of preclusive security broke down in this age of political chaos, Roman leaders adopted what is sometimes called an “elastic” strategy. That is, they made no attempt to defend territorial frontiers at all, and

103. On the third century see Michael Grant, *The Climax of Rome* (London, 1968); R. MacMullen, *The Roman Government's Response to Crisis AD 235-337* (New Haven, 1976); G.C. Brauer, *The Age of the Soldier Emperors: Imperial Rome A.D. 244-284* (Park Ridge, N.J., 1975).

simply hoped to defeat the enemy invaders as the occasion arose.¹⁰⁴ To talk about an “elastic” grand strategy is to put too majestic a term to it. An “elastic” grand strategy is virtually no grand strategy at all.

In this period Franks crossed the Rhine, Alamanni and Goths penetrated the defenses of the Danube, and one Emperor, Decius, was actually killed in fighting the Goths. Herulian attackers took Athens in 268. Saxons crossed the Channel into Britain. Alamanni even broke into northern Italy, while the Franks poured across Gaul and reached northeastern Spain. Much of the East came under the control of the rulers at Palmyra, Odenathus and Zenobia, and Gaul was taken by the usurper Postumus. Rome permanently abandoned the province of Dacia and the *Agri Decumates*, the territory connecting the headwaters of the Rhine and the Danube.

In the East the situation was in some ways even more critical. The Parthian Wars of Trajan, Marcus Aurelius and Septimius Severus had so weakened the Mesopotamian kingdom that in the 220's it collapsed. As the new Sassanian Persian dynasty gained control of the region, the Sassanid Kings proved much more powerful than their Arsacid Parthian predecessors. A high intensity threat on the eastern frontier became critical. In the year 260 the Persian King Shapur actually captured the Roman Emperor Valerian, who was probably subjected to torture and died in foreign hands. This permitted the rise of Palmyra until the Emperor Aurelian (270-75) finally restored Roman control. But Persia remained for centuries a potent threat to Rome's eastern frontier.

Considering the collapse of the frontier defenses and multiple invasions on different lines of penetration at the same time, it is a miracle that the Roman Empire survived at all.¹⁰⁵ The Emperor Gallienus is sometimes said to have created a highly mobile cavalry striking force, using it as a strategic reserve in Northern Italy, but that is not the case.¹⁰⁶ He deployed a much

104. Luttwak, *Grand Strategy*, pp. 130-1.

105. For the danger of a war on two fronts see, for example, Jozef Wolski, “Le rôle et l'importance des guerres de deux fronts dans la décadence de l' Empire romain,” *Klio*, 62 (1980), 411-23. See also D. Haupt and H.G. Horn, eds., *Studien zu den Militärgrenzen Roms* (Cologne, 1977), which is merely one of the many useful publications of The International Congress of Frontier Studies.

106. Lukas De Blois, *The Policy of the Emperor Gallienus* (Leiden, 1976), pp. 29-30. See also John Eadie, “The Development of Roman Mailed Cavalry,” *Journal of Roman Studies*, 57 (1967), 161-73.

stronger cavalry arm than Roman Emperors normally used, but there is no evidence to suggest that his reform became permanent. By the time of Diocletian the large cavalry had disappeared. Nor was Gallienus' base in Milan a strategic reserve. In his reign Milan had become a frontier outpost since so much of the Empire was in rebel hands.

Diocletian and the Return to Preclusive Security

When Diocletian became Emperor in 284, there was no reason to believe that he was different from the other military commanders of the Barracks Age. He had risen from the ranks in the army, and he seized the purple with age-old ruthlessness. But the new Emperor proved much more forceful and successful than his predecessors. Perhaps his greatest achievement, and there were many, was the fact that he reigned for over twenty years (284-305). No Emperor had done that since Antoninus Pius in the second century, and Rome desperately needed the stability Diocletian offered.¹⁰⁷

Diocletian is famous for many reasons. He created the Tetrarchy and made three other military commanders his partners in power. He completely reorganized Rome's system of provincial administration and fought inflation, though without much success, by issuing good coins and enforcing the Edict on Maximum Prices. As part of his program to restore the virtues of old Rome, he launched the most vicious of all persecutions of Christianity. For our purposes, however, what is especially important about his reign is that he restored the military integrity of the Roman Empire.¹⁰⁸ By the time of his abdication, he had regained control over more territory than Augustus ruled at his death in 14 AD.

There is considerable controversy about the nature of Diocletian's military reforms, but it seems likely that he inherited the 33 legions that had been on the books since the days of Septimius Severus. There is no evidence

107. On Diocletian generally see Stephen Williams, *Diocletian and the Roman Recovery* (London, 1985); T.D. Barnes, *The New Empire of Diocletian and Constantine* (Cambridge, Mass., 1982); and Frank Kolb, *Diocletian und die Erste Tetrarchie* (Berlin, 1987).

108. On his wars see T.D. Barnes, "Imperial Campaigns, A.D. 285-311," *Phoenix*, 30 (1976), 174-93; J. Kolendo, "La chronologie des guerres contre les Germains au cours des dernières années de la tetrarchie," *Klio*, 52 (1970), 197-203.

that the number of legions changed in the Age of the Barracks Emperors, but our sources do say that Diocletian made significant increases in the size of the army. One source says that he quadrupled the military forces of the Empire, but some modern historians are skeptical. Probably most of his reinforcements came simply as a result of bringing the legions up to near paper strength. That would have produced an army of nearly 400,000, counting the Italian garrison. Perhaps he also added some specialized skirmisher units.¹⁰⁹

In any event it seems likely that he retained Rome's basic military institutions and that the legions remained the backbone of the army, organized as they had always been with about 5000 men to a legion, fighting along the old tactical and operational lines. In grand strategy he returned to preclusive security, drawing firm frontier lines and stationing the legions along them. The new system was different from the one of the second century, because Diocletian organized the Empire into four major military commands, under each of the Tetrarchs, the two Augusti and two Caesars. With their headquarters at Trier on the Rhine, Milan in Italy, Sirmium on the Danube, and Nicomedia in Asia Minor, it became much easier to defend the Empire in the event of war on more than one front. Under Diocletian's system there was an Emperor for each sector, and this arrangement made a quick response to threats on the frontier much easier.¹¹⁰

Diocletian did a great deal to restore the forts and roads along the frontiers, rebuilding them as necessary.¹¹¹ Increased manpower demands strained the system of military conscription. It was no longer possible to rely on volunteers, and Diocletian imposed quotas on the cities and on large landowners, requiring them to provide their share of the manpower needs. Later in the century, the value of a new recruit was set at thirty-six *solidi*, so that even small landowners were required to pay for a portion of the troops. In the Late Empire conscription was unpopular. Some potential draftees cut

109. Ferrill, *Fall of the Roman Empire*, pp. 41-3.

110. T. Mommsen, "Das römische Militärwesen seit Diocletian," *Hermes*, 24 (1889), 195-275, dated the new mobile army to Diocletian's reign, and he has been followed by many modern scholars, including Luttwak, who refers to a "shallow" system of defense-in-depth, but see my discussion (cited above, n. 109, including the notes to those pages).

111. H. von Petrikovits, "Fortifications in the Northwestern Roman Empire from the Third to the Fifth Centuries A.D.," *Journal of Roman Studies*, 61 (1971), 178-218.

off their thumbs to escape conscription, but Valentinian I ordered them to be burnt alive. This clearly reveals the seriousness of the problem, but it is even better illustrated by Theodosius the Great, who actually accepted the thumbless conscripts but stipulated that the areas that sent them for military service had to send two for every one healthy trooper.

Defense-in-Depth: Constantine and the Mobile Army

Constantine the Great introduced a major and disastrous change in Roman grand strategy. He organized a powerful, mobile striking force (of about 100,000 men), drawing them from their posts on the frontiers, stationed them near wherever he happened to reside, and resorted to defense-in-depth rather than preclusive security.¹¹² This new system has been clearly described and generally praised by Luttwak.¹¹³ Most Roman historians, since the time of Mommsen, have regarded defense-in-depth as an improvement over preclusive security because the new mobile army served as a central reserve for use wherever the occasion demanded. Although it worked reasonably well for three-quarters of a century, defense-in-depth was, in fact, a catastrophe, and it eventually contributed mightily to the fall of the Roman Empire in the West.¹¹⁴

Only one ancient source, Zosimus, mentions the new grand strategy, but he is forceful in attributing it to Constantine the Great, and in condemning it as the cause of Rome's ultimate grief:

Constantine abolished this [frontier] security by removing the greater part of the soldiery from the frontiers to cities that needed no auxiliary forces. He thus deprived of help the people who were harassed by the barbarians and burdened tranquil cities with the pest of the military, so that several straightway were deserted. Moreover, he softened the soldiers, who treated themselves to shows and luxuries. Indeed (to speak plainly) he personally planted the first

112. On the size of the mobile army see Dietrich Hoffmann, *Das spätromische Bewegungsheer und die Notitia Dignitatum*, Vol. I (Düsseldorf, 1969), 304. See also Ramsay MacMullen, "How Big Was the Roman Army?" *Klio*, 62 (1980), 451-60; and M. Speidel, "The Later Roman Field Army and the Guard of the High Empire," *Latomus*, 46 (1987), 375-79.

113. Luttwak, *Grand Strategy*, pp.123-90.

114. On this point generally see my *Fall of the Roman Empire*.

seeds of our present devastated state of affairs.¹¹⁵

In a typically strong passage Edward Gibbon accepted the verdict of Zosimus:

The memory of Constantine has been deservedly censured for another innovation, which corrupted military discipline and prepared the ruin of the empire....Though succeeding princes laboured to restore the strength and numbers of the frontier garrisons, the empire, till the last moment of its dissolution, continued to languish under the mortal wound which had been so rashly or so weakly inflicted by the hand of Constantine.¹¹⁶

It is difficult to explain why writers of the nineteenth and twentieth centuries have rejected this view and praised defense-in-depth. Possibly they have done so because the importance of strategic reserves has been a major tenet of modern military thought or because of the widespread view that Rome was so weak by the fourth century that the Empire had essentially already been lost. One thing is certain: defense-in-depth is a loser's strategy. It is a confession of weakness by conceding the impossibility of maintaining a strong perimeter defense and planning for the penetration of the frontiers by enemy forces.

Theoretically, defense-in-depth assumes the impossibility of preventing penetration of the frontiers in the event of a high intensity threat. In recent times NATO forces in Germany could not have held the West German frontier against a Soviet invasion, though for political reasons lip service was paid to the concept of a forward defense. There have been four U.S. divisions and about thirty Soviet ones in the region, at least until the dramatic changes in Soviet policy beginning late in 1989. In a situation such as that defense-in-depth, depending on quick and heavy reinforcements from the United States, becomes the only alternative, though even then it is not a very reliable one in a conventional, non-nuclear war. The main problem with defense-in-depth is that defending forces will not be inclined to risk their lives if they know that they are not expected to hold a line in the face of an enemy attack. In the case of the United States, the main backup for defense-in-depth is the possibility

115. Zosimus, *Historia Nova*, trans. by James J. Buchanan and Harold T. Davis (San Antonio, 1967), II, 34.

116. Gibbon, *Decline and Fall*, Bury ed., II, pp. 188-9.

of using nuclear weapons, and up to now that has been a sufficiently strong deterrent. But Rome had no nuclear arsenal, and in the end Roman mobile armies did not prove equal to the task assigned to them.

Defense-in-depth required the close integration of the frontier garrisons and the mobile reserve in the event of enemy incursion. Frontier forces were not only to delay the enemy; they also were to aid their own reserve forces advancing to counterattack. The defenders on the periphery were supposed to serve as supply depots as the central army arrived in the area, and also to secure control of the lines of communication, as well as to provide military intelligence. To perform these functions frontier troops needed strong fortresses, and in the Late Empire fortresses did have much thicker walls and tended to be smaller.¹¹⁷ Because Rome's barbarian enemies normally were inept in the art of the siege, they could not stop to take fortified garrisons as they penetrated the Empire. Therefore, frontier forces theoretically were able to move out to hit attackers in the rear as they poured through. Finally, the border garrisons offered a haven of rest and security for units of the mobile army at times of stress.¹¹⁸

The new grand strategy had many subsidiary effects. One was that it became necessary to fortify the cities of the interior. Some cities had been walled even in the days of the Principate, but the walls were monuments of civic pride rather than genuine military barriers. In the breakdown of the third century, cities started to throw up military defenses, and, after the adoption of defense-in-depth, that became standard. Furthermore, we can assume that cities relatively close to the frontier did not greet the new defense policy with great acclaim, as Zosimus' statement suggests.

The effect of defense-in-depth on the army was enormous. The central mobile reserve became an elite force with much stronger cavalry contingents than Romans had previously deployed. Since mobility was at a premium, and cavalry is more mobile than infantry, this was inevitable.¹¹⁹ Eventually it was necessary to field several mobile armies. One reserve force was simply not adequate to meet all threats around the perimeter of the Empire. Since the

117. J.L. Lander, *Roman Stone Fortification: Variation and Change from the 1st Century A.D. to the 4th* (Oxford, 1984); S. Johnson, *Late Roman Fortifications* (Totowa, 1983).

118. Luttwak, *Grand Strategy*, pp. 132-5.

119. Ferrill, *Fall of the Roman Empire*, pp. 46-7.

Empire after Constantine was often divided into two parts, each under its own Emperor, the Emperors deployed mobile forces in several sectors of their own regions.

Constantine was forced by his new grand strategy to reorganize the entire Roman army. Diocletian had already separated military from civilian command and eliminated Senators from Rome's martial institutions.¹²⁰ Constantine appointed two Field Marshals for the mobile reserve, one for infantry (*magister peditum*) and one for cavalry (*magister equitum*). Elsewhere in the Empire military commanders in the provinces were called Dukes (*Duces*), sometimes commanding troops in more than one province, and above the Dukes were the Counts (*Comites*), who usually had several Dukes under their command (in reverse of the usual ranking later in the Middle Ages, when Dukes outranked Counts).

Tactically and operationally the mobile army relied heavily on cavalry, but there were a number of specialized units, some of which had been created earlier, of heavy cavalry and shock troops.¹²¹ Constantine, who had come from the West, was also fond of ethnic units from Gaul and of Germanic forces recruited from across the Rhine. It was he who first began the barbarization of the Roman army on a relatively large scale, although Romans had often used small detachments of German fighters, going back into the days of the Republic.

The biggest impact of the change in grand strategy was in the infantry. Constantine abolished the Praetorian Guard and reorganized the legion. It was reduced in size from 5000 to 1000 men. The system of military pay had broken down with the economic collapse of the third century as debasement of the coinage led to the adoption of barter as the vehicle of exchange. This meant that troops were paid in rations, but they also often received cash bonuses, especially after Constantine had some success in issuing a valuable new coin, the *solidus*. There is virtually no evidence about the tactical operations of the newly reorganized legions.

Units on the frontier became known as the *limitanei* (border guards) and

120. J. Osier, "The Emergence of the Third-Century Equestrian Military Commanders," *Latomus*, 36 (1977), 674-87.

121. A.D.H. Bivar, "Cavalry Equipment and Tactics on the Euphrates Frontier," *Dumbarton Oaks Papers*, 26 (1972), 271-91.

ripenses (river guards).¹²² For perhaps two generations after Constantine their fighting ability remained high, but they gradually began to deteriorate, and eventually they turned into a local, rural militia, scarcely capable of effective military action. At least that was true in the West, particularly after the death of Theodosius the Great in 395 and the sack of Rome by Alaric and the Visigoths in 410. The deterioration of the infantry was the inevitable result of defense-in-depth. *Limitanei* and *ripenses* came to be considered second rate troops in comparison with the elite mobile armies, and that perception was not lost on the defenders of the frontiers. As they came to understand that they were not expected to hold the line against invaders, it is not surprising that they made little attempt to do anything at all.

Barbarization of the army, which began on a large scale with Constantine, also undermined the old Roman discipline. Barbarian troops, under their own commanders and their lax discipline, were often treated with greater favor and received more pay than Roman forces. When Roman troops petitioned the Emperor for relaxation of discipline, and for a reduction of the heavy armor they had always worn, he was in no position to deny the request. By the fifth century there was no one left alive in the Empire, according to Vegetius, who knew the old Roman system. It had to be learned from books. For various reasons, as we shall see later, the impact of defense-in-depth and of barbarization were greater in the West than in the East.

Arms and Armories

Even in the Late Empire, Romans retained their logistical advantage over foreign foes. In some ways, because of the growing bureaucratization and centralization, the Roman logistical support system was actually improved by the later Emperors. In this section, and in the one that follows, we shall look at two examples of Roman logistics: weapons and cavalry support. They are representative of Rome's advanced system of logistical support, a system probably better than Napoleon's and as good as any before the introduction of the railroad.

122. B. Isaac, "The Meaning of the Terms *Limes* and *Limitanei*," *Journal of Roman Studies*, 78 (1988), 125-48.

In the Principate the manufacture of weapons was left mainly to the legionary workshops and private enterprise. In the Late Empire, however, the imperial government intervened and assumed responsibility for producing weapons for its armed forces. The imperial armorers were called the *fabricenses*, and they became a class of hereditary, industrial serfs. In the Theodosian Code we are told, “. . .this guild arms, this guild equips Our army.” Most of what we know today about the imperial armories (*fabricae*) comes from the *Notitia Dignitatum*, though there are some references in the law codes and in other sources.¹²³

Many of the *fabricae* were highly specialized. Some made spears, others bows, arrows, swords, shields, saddles, and cavalry armor. They were located all over the Empire, though their location did have some strategic significance. There were three *fabricae clibanariae* for the production of heavy cavalry armor in the East, while there was only one in the West. Persian heavy cavalry was obviously a greater threat than barbarian cavalry. Altogether the *Notitia* reveals the existence of twenty specialized armories in the West and only fifteen in the East. Most of the *fabricae* made shields and armor for the regular forces while the others concentrated on weapons for special forces. There were none in Britain, Egypt or North Africa, and most were concentrated along the line of the Rhine and the Danube and the eastern frontier.

The leading authority on the arsenals, Simon James, has written,

Such a regular distribution is unlikely to have arisen by accident, and can only be satisfactorily explained by the existence of a deliberate planning policy behind at least those factories making the basic panoply. There seems to be ample justification, therefore, for postulating an armaments factory system, established as a single conception rather than piecemeal.¹²⁴

Nevertheless, there are some anomalies. All factories producing missile weapons were concentrated in the West, including those that made catapults, yet the use of bows and artillery must have been as extensive in the East as in the West.

123. The evidence is discussed in an excellent article by Simon James, “The *Fabricae*: State Arms Factories of the Later Roman Empire,” in J.C. Coulston, ed., *Military Equipment and the Identity of Roman Soldiers* (Oxford, 1988), pp. 257-331.

124. James, “*Fabricae*,” p.254.

James demonstrates that the system of arsenals can be attributed to Diocletian and that the dispersal of the factories does not fit very well into Constantine's creation of a central reserve or with the strategy of defense-in-depth. They were normally situated on major lines of communication, either on the public highways or, in the case of the Danube, on the river itself. Some of them were relatively far from the frontier zone, and they may have been located in centers where private armories had existed in the days of the Principate. As a general rule the *fabricae* were located in heavily walled cities where invaders or local bandits would have difficulty taking them. The prohibition against bearing arms remained in effect for Roman citizens even in the fourth century.

The *fabricae* of the Late Empire became an institutionalized branch of the governmental bureaucracy. They were under the Master of Offices (*magister officiorum*) of each half of the Empire from the time of Constantine. Under the Master of Offices was an official called *subadiuva fabricarum*, Assistant for Arsenals. He was drawn from the highest grade of agents in the Secret Service (the *agentes in rebus*). Their high rank illustrates the importance of the arsenals to the government and the army. Requests for arms probably came from the local army unit up to the Field Marshals, who then referred them to the Master of Offices. He sent them to the Assistants for Arsenals, and they would determine the appropriate armory for the specified arms. The Praetorian Prefect of the relevant region was responsible for the actual delivery of the weapons.

In the shops themselves there was probably considerable specialization of labor. It is possible that different workmen fashioned the metal and wooden parts of shields and that there were production quotas. In the highly specialized factories there must have been some connection between the craftsmen and the units using the products, so it is revealing that units of cataphracts and artillery were stationed in the same place as the arsenal for heavy cavalry and catapults. It is even possible that suits of armor had to be made to the measurements of the warrior wearing them. The number of men engaged in arms production may have been as high as 7,000 to 17,500. There were at least as many as thirty-five factories.

Weapons-makers were tied to their occupations, as were most Romans in the Late Empire, and sons were expected to replace their fathers. Still, there

was a need for recruits in the arsenals, as sources for the period indicate. On the whole the position of armaments-makers was a desirable one. They were exempted from billeting troops and had a number of other legal privileges. They were not likely to run away from their jobs the way other Romans did at that time, but they were often lured away by better offers to become estate managers or to serve in other relatively prominent positions. There is reason to believe that the job was highly desirable, because many who deserted other occupations ended as weapons makers.¹²⁵

What is important about these *fabricenses* is that Rome's enemies had nothing at all like them. Nowhere in all Free Germany was there a single armaments factory, let alone a system of arsenals. Also, the arms industry is simply an example of the way Romans organized their military institutions. There was an equally elaborate system of providing food for the army, of maintaining the roads, of getting military intelligence and of providing for the specialized branches, such as the cavalry.

Stable-fed Cavalry and Horse Recruitment

Every army needs an adequate system for the supply of horses and for their feed and care. The barbarians seem to have relied mainly on stealing and breeding, and Tacitus says that German horses were not outstanding in appearance or in speed. The Romans applied their usual administrative and bureaucratic skills to this branch of warfare and organized it scientifically. Not that Romans were above stealing; when they had a chance to take enemy horses, they did. But Rome did not rely on confiscation alone, and it simply was not possible to breed horses fast enough to meet every need, especially in wartime.¹²⁶

In the Early Empire there were sometimes critical shortages of horses for the cavalry, although the army regularly purchased animals from civilians and demanded a veterinary examination to guarantee their condition.

125. In addition to James, "*Fabricae*," whose treatment is definitive, see also A.H.M. Jones, *The Later Roman Empire 284-602*, Vol. II (Norman, 1964), pp. 834-6.

126. On this subject see R.W. Davies, "The Supply of Animals to the Roman Army and the Remount System," *Latomus*, 28 (1969), 429-59.

Occasionally the troops simply took horses (and camels) without paying for them, but the imperial government normally discouraged confiscation and the threat of force. Some documents of the first century reveal that imperial agents bought horses for relatively high prices. They maintained precise records of the purchase of horses for the cavalry and as pack animals. Cavalry horses seem to have been purchased by the governors of the various provinces, or their agents, and then assigned to a specific rider. Some areas of the Empire were noted for good horses, especially Cappadocia. In the Late Empire there were regulations requiring horses of a certain weight, height, form, and age.

After purchase the horse was subjected to a program of training to learn how to wheel, turn, circle, and ride in a straight line and at an angle. This had to be done at the canter, the trot and the gallop. Horses were trained to swim in the sea and in rivers. They were also taught how to kneel and lie down while the infantry went into square formation around them. They were trained to jump ditches and walls, to tolerate the sound of the trumpets. There were even covered exercise halls for training the horses in inclement weather.¹²⁷ In the Late Empire the purchase of horses was left to a *strator consularis* attached to the *officium* of the governor.

As the need for more horses became greater in the Late Empire, the government entered the horse raising business directly. There were stud farms in Asia Minor, Thrace, Spain, and Cappadocia. Most military horses were mares and geldings, because stallions fight one another too much and are difficult to handle. Bureaucratic controls naturally increased as the government became more concerned with the recruitment of horses. The system was under a tribune of the stable, later a *comes* attached to the mobile armies. It is not unimportant that Roman horses were essentially stable-fed, unlike the horses of the barbarians. Nowhere in Free Germany was there anything comparable to the Roman system of horse supply.¹²⁸

127. R.W. Davies, "The Training Grounds of the Roman Cavalry," in Davies, *Service in the Roman Army*, pp. 93-123.

128. R.E. Walker, "Roman Cavalry Rations," *Veterinary History*, 4 (1974-75), 16-19.

The Secret Service

The Roman Secret Service was greatly expanded in the Late Empire. Diocletian reorganized the earlier *frumentarii* into the *agentes in rebus*, “agents for things” or “agents for unspecified affairs.”¹²⁹ Their very imprecise designation is a key to their importance since they were used for a wide range of activities. The *frumentarii* had been drawn from the legions, but *agentes in rebus* were civilians with military rank and privileges. The corps of secret agents was placed under the Master of Offices, and the size of the agency increased from 200 *frumentarii* to 1200 *agentes in rebus*.

They supervised the public post to make sure that no one used it without permission and that even those who had permission did not demand more service than their entitlement. In the mid-fourth century they made annual inspections of each province. They seem to have had the power of arrest and of punishment, and there are many complaints in the sources about their abuse of authority.¹³⁰ They spied on the provincial governors and on high ranking military commanders, and there is evidence that they spied even on people in their own organization.

Another branch of the Secret Service was the notaries (*notarii*), originally legal clerks or imperial secretaries in the military branch of government. Because of their familiarity with the decisions of the central court they were particularly useful as clandestine agents. Inevitably their duties overlapped with those of the *agentes in rebus*. One *notarius* spied on Julian in Gaul, and another was sent to Africa by Valentinian I to report on affairs there.¹³¹ *Notarii*, like the *agentes in rebus*, were civilians.

Both branches of the Roman Secret Service had some military duties, sometimes simply as messengers but occasionally even as commanders. Constantius II used a *notarius* to order the transfer of Julian’s auxiliaries to the East. *Notarii* often carried messages of the highest order from the emperor to senior officials in the Empire, and it was not uncommon for a *notarius* to

129. For the Secret Service in the Late Empire see Sheldon, *Tinker, Tailor*, pp. 175-84. See Also W. Sinnigen, “Two Branches of the Late Roman Secret Service,” *American Journal of Philology*, 80 (1959), 238-254 and Jones, *Later Roman Empire*, pp. 575-82.

130. See, for example, Ammianus Marcellinus, XXII, 7, 5.

131. Ammianus Marcellinus, XVII, 9, 7; XXVIII, 6, 12.

stay and supervise the implementation of the order he brought from the Emperor.

Other secret agents were called *protectores* and *domestici*, apparently serving to carry out the Emperor's personal orders for arrest and execution. One of their duties was to inspect the state arsenals. There was another group of agents called *arcani*, literally "secret agents," mentioned only in a brief passage of Ammianus Marcellinus, but the historian indicates that he had written about them earlier in his work, in a section that is now lost:

The members of the so-called 'Secret Service,' a body of long standing of which I gave some account in my history of Constans, had gradually become corrupt and were removed from their posts by [Count] Theodosius. They were clearly convicted of having been bribed by gifts or promises of large rewards to pass to the barbarians regular information about what we were doing. Their function was to circulate over a wide area and report to our generals any threatening movements among the neighbouring tribes.¹³²

The Roman Secret Service is sometimes dismissed as a simple internal police force, and it has been criticized for failing to generate foreign intelligence and purely military intelligence. But Roman strength was based on central organization, on the legions, on the internal lines of communication, and on the system of logistical support. Internal security within that complicated system and within the broader political organs of government was much more useful in the application of Rome's grand strategy than foreign intelligence. The *arcani* do seem to have provided some foreign intelligence, in any case, and the legions had their own scouts and spies for purely military intelligence.

Intelligence agents were extraordinarily unpopular in the Roman Empire, and they were undoubtedly guilty of corruption, deceit, and abuse of power. It is probable that those nefarious qualities are inherent in intelligence agencies, and it is certainly true that they did not disappear from the pages of history with the fall of the Roman Empire.

132. Ammianus Marcellinus, XXVIII, 3, 8, trans. by Walter Hamilton (Penguin Books, 1986).

Technology and War

Today there is an argument between the advocates of “high tech” warfare, or advanced weapons systems, and those who believe that the PBI, the “poor bloody infantry,” are in the end the most important element in land warfare. The controversy is not new. In the Late Roman Empire contemporaries realized that imperial power was shrinking, and we have two documents surviving from that time by authors who took opposite sides along the modern lines mentioned above. One was Vegetius, who believed that the solution to Rome’s military problems was to reorganize the infantry according to the custom of the ancient Romans, restoring the old training, discipline, and drill. I have referred throughout to his views, because they were more realistic than those of his contemporary, an anonymous author who is normally referred to simply as “Anonymous.”

The *De Rebus Bellicis* of Anonymous is a fascinating document for several reasons, but one of them is that he also noticed the decline in Roman might, and his solution was to employ Rome’s advantage in technology to produce a more effectively mechanized army.¹³³ Although Anonymous makes certain recommendations about military expenditures and frontier policy, the heart of his treatise deals with new inventions that could be used against the enemy, and his work contained illustrations of each of them. One was renewed use of specially designed scythed chariots. There were three varieties: one was drawn by two armored horses and riders, another by only one horse and rider, and the third by two horses and only one rider. The scythes were hinged at the axle, and they could be raised or lowered by ropes that passed through rings on the horses flanks.¹³⁴

The axles were fixed so the ropes would not wind around them, and the mounted riders presumably had greater control than a driver stationed on the chariot itself. The horses of the first chariot (Type I) were yoked to a normal chariot pole, but the single horse on Type II would have been harnessed between shafts, creating a problem for the rider unless the shafts ended short

133. The best discussion is in M.W.C. Hassall and Robert Ireland, eds., *De Rebus Bellicis* (Oxford, 1979); see also E.A. Thompson, *A Roman Reformer and Inventor* (Oxford, 1952).

134. For a discussion of the inventions see Mark Hassall, “The Inventions,” in Hassall and Ireland, *De Rebus Bellicis*, Part I, pp. 77-95.

of the rider's legs. Type III, with two horses but only one rider, had shields protecting it from the rear and automatic lashes to drive the horses forward. All horses wore scale armor. The illustrations show the rider on Type III with wings behind his shoulders, but there is no obvious explanation of what function they performed.

Anonymous also recommended the use of two new types of catapults. One type, the *ballista fulminalis*, seems to have universal joints at the center of gravity, but there are serious difficulties in determining how these catapults were supposed to be fired. The other type, *ballista quadrirotis*, a catapult mounted on a chariot, is equally difficult to understand. There may have been a pivot at the center of gravity of this machine also.

The invention that has attracted the most attention is the warship (*liburna*) powered by oxen pushing around a gear that turned a paddle wheel. The gearing system would certainly have worked, but it is unlikely such craft could have attained speeds necessary for military action. Similar vessels made in early modern Europe, powered by four to eight horses, did reasonably well, but they were not used for warfare, and Roman oxen might not have been as effective as modern horses.

Another invention is the *tichodifrus*, literally "wall chariot," but it was a machine for scaling walls. Two men (or perhaps two horses) pulled the machine forward. The last invention was an inflatable bridge (*ascogefyrus*) supported by inflated bladders. This is a useful idea, and there are modern examples, but Anonymous had in mind large bridges, since he said that his could be carried dismantled by fifty pack horses.

Whether these inventions were practical, a matter that is debatable in most instances, is irrelevant. It is difficult to believe that they could have altered Rome's fate, even if they had worked. Romans already had a substantial lead over the barbarians in technology, and the limits of Roman technology had nearly been reached without the aid of the steam engine and modern processes of producing steel. In Rome's case, at least, "high tech" was not the solution. What Romans needed was an effective system to employ the great technological advantages they already had. In the end, Vegetius' proposal to reorganize the army was a better solution to Rome's military dilemma.¹³⁵

135. M.A. Tomei, "La tecnica nel tardo impero romano: le macchine da guerra," *Dialoghi di Archeologia*, 4 (1982), 63-88.

The Barbarians in the Army

Roman grand strategy always depended to some extent on the recruitment and use of specialized barbarian forces, going back into the days of the Republic. In the Late Empire there was a much heavier reliance on barbarian troops, and in the end the Roman army, at least in the West, actually became barbarized. This aspect of military policy, from the time of Constantine the Great to the fall of the Empire in the West, seriously undermined Roman military power.¹³⁶

Constantine was the first Emperor to use barbarians on a massive scale. There were many in the army he used for the attack on Italy when he gained imperial power at the Milvian Bridge in AD 312. After the first Christian Emperor disbanded the Praetorian Guard, he replaced it with the *Scholae Palatinae*, a crack force made up heavily of Germans.¹³⁷ At Constantinople 40,000 Goths were stationed to defend the new capital. Some of these barbarians were eventually drawn into other branches of government service.

A passage in Ammianus Marcellinus, dealing with Julian's attempt to seize the purple, illustrates the point:

On this occasion Julian attacked the reputation of Constantine also by describing him as an innovator and a destroyer of hallowed laws and traditions, and openly reproached him for being the first to promote barbarians to the honour of the consulship. This was a tasteless and irresponsible act on the part of Julian, who, instead of studying to avoid the very fault which he so hotly reprobated, shortly afterwards made Nevitta the colleague of Mamertinus in the consulship. Nevitta, so far from being the equal in distinction, experience, and renown of those on whom Constantine had conferred the highest magistracy, was uncultivated and rather boorish and, what was even less tolerable, cruel in the conduct of his high office.¹³⁸

From Constantine on it was policy to recruit the legions from natives of the Empire and the *auxilia* from barbarians, and when new units were added

136. There is an excellent appendix on fourth-century barbarians in Roman service in Ramsay MacMullen, *Corruption and the Decline of Rome* (New Haven, 1988), pp. 199-204. See also my discussion and footnotes in *Fall of the Roman Empire*, pp. 84-5 and 144-5.

137. R.I. Frank, *Scholae Palatinae: The Palace Guards of the Later Roman Empire*, Papers and Monographs of the American Academy in Rome, Vol. XXIII (Rome, 1969).

138. Ammianus Marcellinus, XXI, 10, 8, (Penguin Books, 1986).

as the fourth century wore on, they were mainly *auxilia*. When Julian was in Gaul, he recruited among the Germans, and Constantius II used many of them in the East.¹³⁹ Julian later invaded Persia with an army made up largely of barbarians. After the Goths crossed the Danube and won their famous victory at Adrianople (378), they were used extensively by Theodosius the Great, especially at the Battle of the Frigid River (394) against Eugenius, when Theodosius gained control of the entire Empire.¹⁴⁰

Such widespread use of barbarians was dangerous for Rome. Alaric, the Visigothic leader who aided Theodosius, claimed as his reward an official appointment as a Field Marshal of the troops in Illyricum. This was extremely important, because as a general in the Roman army, he had access to the arsenals and supply networks. According to Ramsay MacMullen, by the time Alaric and the Visigoths sacked Rome in 410, "He and his men were the Roman army, and had been for decades."¹⁴¹ This obvious overstatement does reveal a fundamental truth.

Heavy reliance on the manpower of Free Germany reveals the difficulty of recruitment of Roman natives for the army. The Germans were not necessarily better troops, but they were readily available and eager to serve under conditions that were infinitely preferable to any they had seen in Free Germany. Their deleterious impact on the discipline and training of the legions cannot be overemphasized. As early as the reign of Gratian, according to Vegetius, Roman soldiers began to petition for relaxation of discipline. They

...wore breastplates and helmets. But when, because of negligence and laziness, parade ground drills were abandoned, the customary armor began to seem heavy since the soldiers rarely ever wore it. Therefore, they first asked the emperor to set aside the breastplates and mail and then the helmets. So our soldiers fought the Goths without any protection for chest and head and were often beaten by archers. Although there were many disasters, which led to the loss of great cities, no one tried to restore breastplates and helmets to the infantry. Thus it happens that troops in battle, exposed to wounds because they

139. R.C. Blockley, "Ammianus Marcellinus on the Persian Invasion of AD 359," *Phoenix*, 42 (1988), 245-61.

140. Ferrill, *Fall of the Roman Empire*, pp. 72-5.

141. MacMullen, *Corruption*, p. 204.

have no armor, think about running and not about fighting.¹⁴² It would not be long before Roman legions had forgotten the tactics that had made them so strong for centuries.

The impact would be felt much more in the Western Roman Empire than in the East. For more than a decade after the death of Theodosius (395), his close associate in power, Stilicho, served as regent in the West for Theodosius' son, Honorius. Stilicho continued Theodosius' policy of dependency on barbarian troops, and that became the standard in the West. In the East there was a strong reaction against barbarism, beginning around 400, and the Eastern Emperors began the development of what would become the Byzantine army.¹⁴³

In the fourth century Rome began to trust in barbarian manpower in cavalry and in infantry. Romans, who had never been strong in cavalry, were able to put their own highly institutional stamp on that branch of warfare. They Romanized barbarian cavalry and produced a superb mounted force. When Vegetius wrote the *De Re Militari* he was able to say that he could ignore cavalry because the Romans were so superior in it.¹⁴⁴ Roman infantry, however, was barbarized, in the West at least, and it would never again regain its tactical superiority.

The Sack of Rome

The critical turning point in the military history of the Late Empire came in the period 407-410, which culminated in the sack of the city of Rome.¹⁴⁵ The crisis had been building up since the death of Theodosius, as Alaric and the Visigoths had rampaged in the Balkans all the way down to the Peloponnese and in 401-02 attempted an abortive invasion of Italy. Stilicho

142. Vegetius, I, 20 (translation mine).

143. The best book on this period is Emilienne Demougeot, *De l'unité à la division de l'empire romain 395-410* (Paris, 1951). See also J.M. O'Flynn, *Generalissimos of the Western Roman Empire* (Edmonton, 1983); J. Matthews, *Western Aristocracies and Imperial Court, AD 364-425* (Oxford, 1975); by the same author, *The Roman Empire of Ammianus* (London, 1989); Alan Cameron, *Claudian, Poetry and Propaganda at the Court of Honorius* (Oxford, 1970). J.B. Bury, *History of the Later Roman Empire*, 2 vols. (New York, 1957, reprint of 1923 ed.), is still useful.

144. Vegetius, III, 26.

145. See my discussion in *The Fall of the Roman Empire*, pp. 86-116.

ably defended the West against this Visigothic incursion, but the danger forced Honorius to relocate the administrative capital from Milan to Ravenna, which was easier to defend.

Strategically it was not a good choice.¹⁴⁶ Ravenna was impregnable, especially since barbarian armies were incapable of scientific siege, but it was relatively easy for invaders of Italy simply to bypass the new center. It would have been better to have moved the court to one of the cities on the Rhone. As it was, Ravenna stood between Constantinople and Rome, serving as a kind of protection for the East and making it less likely that the Emperors of the East would be willing to help the West in a time of trouble.

Alaric sat poised in Illyricum, ready to take advantage of any opportunity to threaten Italy. Stilicho stripped the Rhine and Britain of many of their troops and stationed them in northern Italy for use with the mobile army of the Western Emperor. Since defenses on the Rhine were seriously weakened, a swarm of Germanic tribes, including Vandals, Alans and Suebi poured across the frozen Rhine on the last day of the year 406. Gaul was devastated in 407, and the barbarians eventually pushed as far as Spain. Stilicho could not take action against them, because Alaric threatened Italy itself. Naturally Stilicho's generalship came into question, and a commander named Constantine was hailed as Emperor by the troops remaining under his command in Britain. He crossed the Channel to offer at least some protection to the devastated population of Roman Gaul.¹⁴⁷

In this crisis Alaric moved toward Noricum, and demanded 4000 pounds of gold in return for an alliance between the Western Romans and the Visigoths against the invaders of Gaul, including Constantine. Stilicho urged Honorius to accept this offer, and Romans in the West began to criticize him openly for his pro-barbarian policies. Some suspected that he had designs on the throne. Then when the Eastern Emperor, Arcadius, died, Stilicho announced that he intended to go to Constantinople to preside over the accession of the next Emperor. This seemed altogether too grasping to members of the court in Ravenna, and Honorius agreed to the execution of Stilicho.

At that point Alaric moved across the Julian Alps and into Italy. The Po

146. *Ibid.*, pp. 98-9.

147. See A.S. Esmonde Cleary, *The Ending of Roman Britain* (London, 1990).

fell quickly, and Alaric bypassed the fortified cities of northern Italy as he headed for Rome. Honorius decided to ignore him, refusing to make any concessions, because he believed that Alaric could not conduct a successful siege.¹⁴⁸ That was probably the right strategy, but eventually in 410 someone on the inside of the city opened one of Rome's gates, and barbarian forces marched through the streets of Rome for the first time in 800 years.

Some historians have down-played the significance of the sack of Rome, arguing that it was no longer the effective capital of the Empire. That is true, but the effect its fall had on the morale of the Empire was great, and strategically, it was far more important than historians have generally realized. The entire peninsula was opened to plunder by Alaric, and this threat had led to serious problems in Gaul and Spain, and in the long run it caused the loss of North Africa.

Defense-in-depth had been a total failure. After 407 barbarians gained control of much of the territory of the Roman Empire. About a decade later Visigoths took Aquitaine, which became their permanent kingdom and from which they could threaten the Rhone.¹⁴⁹ Britain had been lost to the Empire altogether with the withdrawal of Roman troops in 407. Vandals, after two decades in Spain, moved across to North Africa in 429 and within another ten years had taken Carthage.¹⁵⁰ Rome had become merely one participant, and not necessarily the most important one, in a balance of power confrontation that developed in the West, requiring a totally different grand strategy.

148. On Honorius' strategy see Ferrill, *The Fall of the Roman Empire*, p. 104.

149. There have been many good books on the barbarians recently. Among them are E.A. Thompson, *Romans and Barbarians* (Madison, 1982); Walter Goffart, *Barbarians and Romans* (Princeton, 1980); Hans-Joachim Diesner, *The Great Migration* (London, 1982); Malcolm Todd, *The Northern Barbarians 100 BC-AD 300* (New York, revised ed., 1987); and Patrick Geary, *Before France and Germany: The Creation and Transformation of the Merovingian World* (New York, 1988), which is based on extensive German scholarship on the period.

150. Christian Courtois, *Les Vandales et l'Afrique* (Paris, 1955); C.M. Wells, "The Defense of Carthage," in J.G. Pedley, ed., *New Light on Ancient Carthage* (Ann Arbor, 1980); and F.M. Clover, "Carthage in the Age of Augustine," in J.H. Humphrey, ed., *Excavations at Carthage 1978 Conducted by the University of Michigan*, Vol. VII (Ann Arbor, 1982), p. 9.

The Fall of Rome

In the aftermath of these cataclysmic events, Honorius had to forge a new military policy, one that required a strong diplomatic component, because Rome was no longer the only powerful state in the western Mediterranean and could not hope to preserve whatever military integrity that remained through force of arms alone. It became necessary to balance one power against another and to form alliances, as well as to field armies. After the death of Stilicho, the General Constantius, who eventually married Honorius' sister, Galla Placidia, and became Co-Emperor (d. 421), took control of Rome's grand strategy in the West.¹⁵¹ He marched to Spain and Gaul, regained control over much territory, and defeated the usurper from Britain, Constantine. But much of the West was by then in barbarian hands.

Constantius was in no position to destroy the barbarians by force, especially as the Visigoths moved into Gaul after their foray in the Italian peninsula. Although Constantius could not destroy them, he used naval power to blockade the Gallic coast on the Mediterranean and force Ataulf, who had succeeded Alaric, to move into Barcelona in Spain. Constantius then reasserted imperial control over most of Gaul, although Burgundians were recognized as *foederati* along the Rhone.¹⁵² Other parts of Gaul were essentially lawless, in the grip of brigands called *Bagaudae*. In Spain Vallia (415-418), the new Visigothic King, agreed to become the ally of Rome and drive other barbarians out of the region. Constantius used Roman superiority on the sea and control of supplies to good advantage. In 418 Visigoths were given Aquitaine in southern Gaul under their new King, Theodoric I, who succeeded Vallia in that year.

Constantius died in 421, and Honorius followed him in 423. They had done as well as they could in restoring Roman power in the West, but Rome now faced several essentially independent governments in Gaul and Spain. After the accession of Valentinian III (who was only six years old) in 425, a new commander, Aëtius, sometimes called "the last of the Romans," emerged to dominate Roman policy. He put priority on saving Gaul, and as a result did not divert his strength to prevent Vandals from moving into North Africa in

151. Stewart I. Oost, *Galla Placidia Augusta* (Chicago, 1968).

152. Ferrill, *The Fall of the Roman Empire*, pp. 118-26.

429 and then on to Carthage by 439. Actually, he approved a treaty between Valentinian and Gaiseric, the Vandal king, in 442, which called for the marriage of Valentinian's daughter to Gaiseric's son. The loss of Africa was a blow to the Western Emperor. It meant giving up the grain produced there and also yielding control of the sea to the Vandals. In fewer than fifty years since the death of Theodosius the Western Empire had lost Britain, parts of Gaul and Spain, and North Africa.¹⁵³

One reason for this loss of power and territory was the threat to the northern frontier of the Western Empire that was posed by the rise of the Huns, particularly under their King Attila, in the 430's and 440's. As early as the 370's the arrival of the Huns from the steppes of Asia had forced the migrations that led to the Visigothic crossing of the Danube and the defeat of the Roman army at Adrianople (378). The Huns themselves eventually settled along the Danube on the Great Hungarian Plain. For some time they were relatively quiescent, content to receive an annual subsidy from the Emperor in the East. When they did move against the Romans, the Balkans was their likely destination. But by the late 440's Attila was prepared to intervene in the West.¹⁵⁴

The West was weaker and an easier target for Hunnic expansion. Balance of power politics created an opportunity for Alaric, since Vandals hated Visigoths, and Rome had problems with them and with Burgundians and *Suebi*, as well as the *Bagaudae*. In 451, after securing the neutrality of the Vandals (who were anxious to see the Huns destroy the Visigoths), Attila crossed the Rhine into Gaul. Aëtius responded by putting together a great coalition of Visigoths, Burgundians and Alans, agreeing to an essentially unholy alliance, since they had all been at odds with one another at various times in the recent past. But the threat of the Huns was sufficient to cement the alliance under Roman leadership, and Attila was stopped at the Battle of Châlons.¹⁵⁵

153. Briggs Twyman, "Aëtius and the Aristocracy," *Historia*, 19 (1970), 480-503; and especially for strategy see J.R. Moss, "The Effects of the Policies of Aetius on the History of Western Europe," *Historia*, 22 (1973), 711-31. For Gaul see E. Wightman, *Roman Trier and the Treveri* (London, 1970).

154. On the Huns see Otto J. Maenchen-Helfen, *The World of the Huns* (Berkeley, 1973); E.A. Thompson, *A History of Attila and the Huns* (Oxford, 1948); and Franz Altheim, *Geschichte der Hunnen* (Berlin, 1969), 2 vols.

The next year the king of the Huns led his forces into Italy, but disease and famine, plus the intervention of the Pope, caused him to abandon the invasion. The following year Attila died, and the Huns disappear from the pages of history. Rome had been saved by coalition politics. Interestingly, the Huns had invaded with an army made up largely of infantry, since during their sojourn in the Great Hungarian Plain they had settled down to an agricultural existence and could not maintain the large herds of horses they used in their earlier nomadic days.¹⁵⁶

Not long afterwards, in 454, Valentinian quarreled with Aëtius and slew him with his own sword. One of the Emperor's advisers said, "You have cut off your right hand with your left". Indeed, the next year some of Aëtius' partisans killed Valentinian, and the Vandal King Gaiseric led an armada against Rome itself, taking the ancient city by sea and delivering a death blow to Roman power in the West. Over the next twenty years there were several feeble Roman Emperors, but the last one, Romulus Augustulus, was deposed in 476. From that time on, there was no longer a Roman Empire in the West. It had been destroyed by the abandonment of preclusive security on the frontiers under Constantine the Great, by the decline of Roman infantry, and by the barbarization of the Roman army.

Roman grand strategy will continue to inspire interest for ages to come. The might and majesty of the Roman Empire, even in the long centuries of decline, are unparalleled in the history of the Western world. Although the sun never set on the British Empire, it lasted for a relatively short time, and Britain always faced potentially high intensity threats on the continent. No modern state has enjoyed such military superiority as did the Romans, except for a few brief years after World War II when the United States had a monopoly on atomic weapons. Rome in the first and second centuries of our era is a rare example of an empire strong enough to implement a grand strategy along purely "scientific" lines, unencumbered by the dictates of diplomacy and economics.

155. Arther Ferrill, "Attila at Châlons," *MHQ: The Quarterly Journal of Military History*, 1 (1988), 48-55; and Ulf Täckholm, "Aetius and the Battle on the Catalaunian Fields," *Opuscula Romana*, 7 (1969), 259-76.

156. See the stimulating essay by Rudi Paul Lindner, "Nomadism, Horses and Huns," *Past and Present*, 92 (1981), 1-19.

SELECT BIBLIOGRAPHY

The following items are the major books in English on Roman grand strategy. Interested readers should consult the notes for additional bibliography.

- Adams, John P., *Logistics of the Roman Imperial Army: Major Campaigns on the Eastern Front in the First Three Centuries AD* (dissertation, Yale U., 1976).
- Bishop, M.C., ed., *The Production and Distribution of Roman Military Equipment* (Oxford, 1985).
- Braund, David, *Rome and the Friendly King: The Character of the Client Kingship* (New York, 1984).
- Brunt, P. A., *Italian Manpower 225 B.C.-A.D. 14* (Oxford, 1971).
- Bury, J.B., *History of the Later Roman Empire*, 2 vols. (New York, 1957, reprint of 1923 ed.).
- Campbell, J. B., *The Emperor and the Roman Army* (Oxford, 1984).
- Cheesman, G.L., *The Auxilia of the Roman Imperial Army* (Oxford, 1914).
- Coulston, J.C., ed., *Military Equipment and the Identity of Roman Soldiers* (Oxford, 1988).
- Davies, R.W., *Service in the Roman Army*, edited by David Breeze and Valerie A. Maxfield (New York, 1989).
- Davison, David P., *The Barracks of the Roman Army from the 1st to 3rd Centuries A.D.* (Oxford, 1989).
- Dvornik, F., *The Origins of Intelligence Services* (New Brunswick, 1974).
- Dyson, Stephen, *The Creation of the Roman Frontier* (Princeton, 1985).
- Ferrill, Arther, *The Fall of the Roman Empire: The Military Explanation* (New York, 1986).
- Frank, R.I., *Scholae Palatinae: The Palace Guards of the Later Roman Empire*, Papers and Monographs of the American Academy in Rome, Vol. XXIII (Rome, 1969).
- Geary, Patrick, *Before France and Germany: The Creation and Transformation of the Merovingian World* (New York, 1988).

- Gibbon, Edward, *The History of the Decline and Fall of the Roman Empire* with Introduction, Notes and Appendices by J.B. Bury, 7 vols. (London, 1909-14).
- Goffart, Walter, *Barbarians and Romans* (Princeton, 1980).
- Hassall, M.W.C., and Ireland, Robert, eds., *De Rebus Bellicis* (Oxford, 1979).
- Holder, P.A., *The Roman Army in Britain* (London, 1980).
- Isaac, Benjamin, *The Limits of Empire: The Roman Army in the East* (Oxford, 1990).
- Johnson, S., *Late Roman Fortifications* (Totowa, 1983).
- Jones, A.H.M., *The Later Roman Empire 284-602*, 2 vols. (Norman, 1964).
- Kennedy, Paul, *The Rise and Fall of the Great Powers* (New York, 1987).
- Keppie, Lawrence, *The Making of the Roman Army* (Totowa, 1984).
- Landels, J.G., *Engineering in the Ancient World* (Berkeley, 1981).
- Lander, J.L., *Roman Stone Fortification: Variation and Change from the 1st Century A.D. to the 4th* (Oxford, 1984).
- Luttwak, Edward, *The Grand Strategy of the Roman Empire* (Baltimore, 1976).
- Luttwak, Edward, *Strategy: The Logic of War and Peace* (Cambridge, Mass., 1987).
- McCartney, Eugene S., *Warfare by Land and Sea* (New York, 1963).
- MacMullen, Ramsay, *Corruption and the Decline of Rome* (New Haven, 1988).
- MacMullen, Ramsay, *The Roman Government's Response to Crisis AD 235-337* (New Haven, 1976).
- MacMullen, Ramsay, *Soldier and Civilian in the Later Roman Empire* (Cambridge, Mass., 1967).
- Maenchen-Helfen, Otto J., *The World of the Huns* (Berkeley, 1973).
- Mann, J.C., *Legionary Recruitment and Veteran Settlement During the Principate* (London, 1983).
- Marsden, E.W., *Greek and Roman Artillery: Historical Development* (Oxford, 1969).
- Marsden, E.W., *Greek and Roman Artillery: Technical Treatises* (Oxford, 1971).
- Millar, F., *The Roman Empire and Its Neighbors* (New York, 1965).

- O'Flynn, J.M., *Generalissimos of the Western Roman Empire* (Edmonton, 1983).
- Phillips, Major Thomas R., *Roots of Strategy* (Westport, 1982).
- Reynold, P.K.B., *The Vigiles of Imperial Rome* (London 1926).
- Robinson, H.R., *The Armour of Imperial Rome* (New York, 1975).
- Rossi, Lino, *Trajan's Column and the Dacian Wars* (London, 1971).
- Saddington, D.B., *The Development of the Roman Auxiliary Forces from Caesar to Vespasian (49 B.C.-A.D. 79)* (Harare, 1982).
- Sheldon, Rose Mary, *Tinker, Tailor, Caesar, Spy: Espionage in Ancient Rome* (dissertation, U. Michigan, 1987).
- Speidel, M. *Roman Army Studies* (Amsterdam, 1984).
- Stark, Freya, *Rome on the Euphrates: The Story of a Frontier* (New York, 1966).
- Starr, Chester G., *The Roman Imperial Navy, 31 B.C.-A.D. 324* (2nd. ed., Cambridge, 1960).
- Starr, Chester G., *The Influence of Sea Power on Ancient History* (New York, 1989).
- Thompson, E.A., *Romans and Barbarians* (Madison, 1982).
- Watson, G.R., *The Roman Soldier* (London, 1969).
- Webster, Graham, *The Roman Imperial Army* (London, 1969).
- Wells, Colin, *The German Policy of Augustus* (Oxford, 1972).
- Wells, C.M., ed., *Roman Africa: The Vanier Lectures 1980* (Ottawa, 1982).
- Williams, Stephen, *Diocletian and the Roman Recovery* (London, 1985).

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