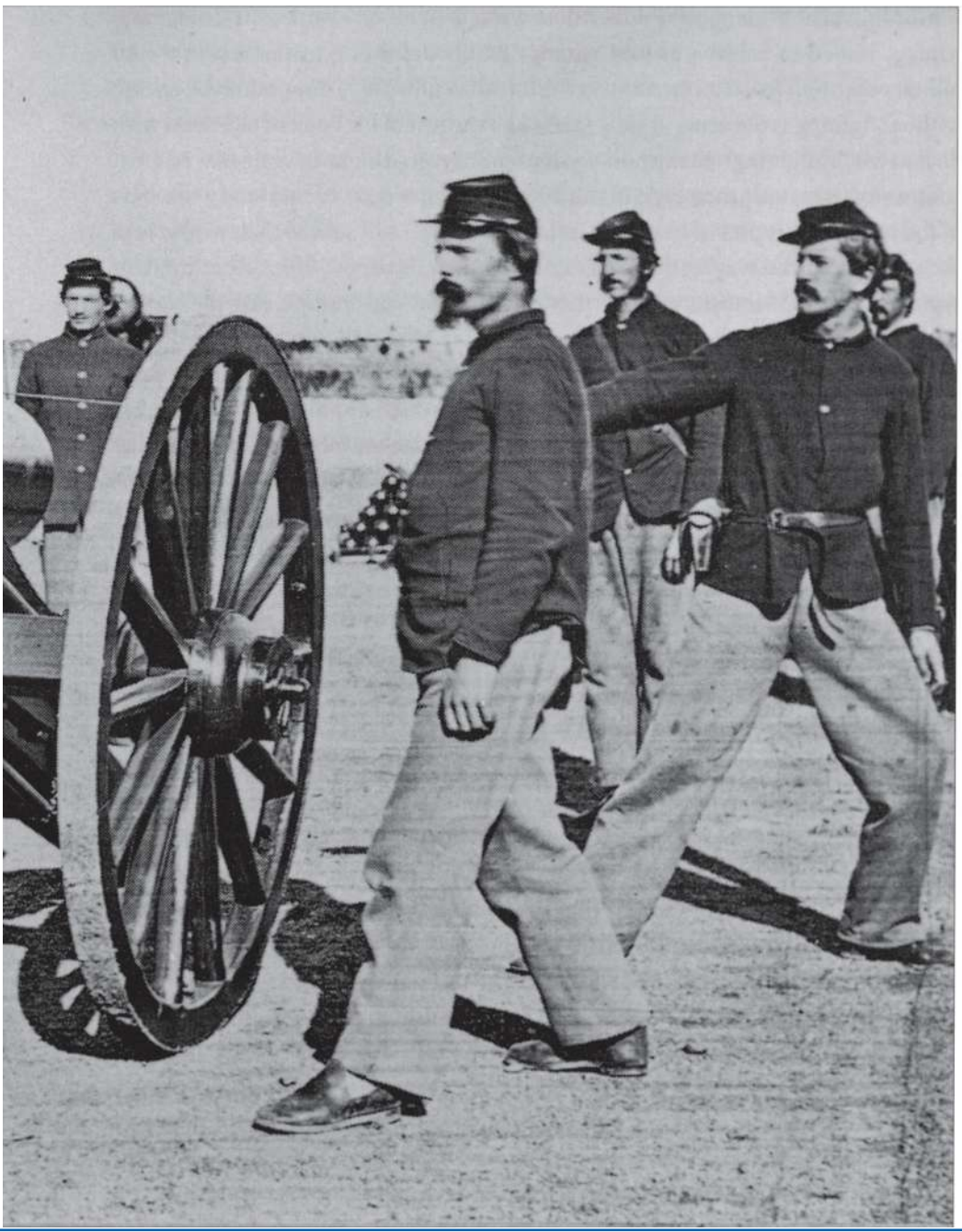


Serving a Perrott rifle gun, Union army, American Civil War.

Page i: A Canadian soldier holds the line at Passchendaele during World War I.

Pages ii–iii: The use of the musket and the pike, in Jacob de Gheyn's *Exercise of Arms*, 1607

INTRODUCTION

The Western Way of War

GEOFFREY PARKER

Every culture develops its own way of war. Societies where land is plentiful but manpower is scarce tend to favour a ritualized conflict in which only a few warriors actually fight but their fate decides that of everyone. The 'flower wars' of the Aztecs and the 'amok combats' of the Indonesian islanders caused relatively little bloodshed because they aimed to seize people rather than territory, to increase each warlord's available manpower rather than waste it in bloody battles. With or without battles, however, as the Prussian officer and military theorist Carl von Clausewitz wrote in the 1820s, war is always 'an act of force to compel the enemy to do our will'. Many non-Western military traditions have displayed great continuity over time. Even in the 1960s, anthropologists could study the highland peoples of Irian Jaya in Indonesia, who still settled their disputes in the same ritualized way as their ancestors; but by then most other military cultures had been transformed by that of Europe and the former European colonies in the Americas. The Western way of war, which also boasts great antiquity, rests upon five principal foundations: technology, discipline, an aggressive military tradition, eclecticism, and finance.

Military innovation has always been a hallmark of the Western way of war. World War I (1914–18) alone initiated soldiers into the use of camouflage, tank warfare, and aerial combat and reconnaissance. It also introduced them to a new and hideous kind of weapon: poison gas. But relatively effective counter-measures soon evolved, and the war dragged on. Here Australian infantry wear gas masks as they hold the line during the Second Battle of Ypres in 1915.

THE PRIMACY OF TECHNOLOGY AND DISCIPLINE

The armed forces of the West have always placed heavy reliance on superior technology, usually to compensate for inferior numbers. That is not to say that the West enjoyed *universal* technological superiority: until the advent of musketry volleys and field artillery in the early seventeenth century, the recurved bow used by horse archers all over Asia proved far more effective than any Western weaponry. Nevertheless, with few exceptions, the horse archers of Asia did not directly threaten the West and, when they did, the threat was not sustained. Nor did all the advanced technology originate in the West: many vital innovations, including the stirrup and gunpowder, came from Eastern adversaries.

Military technology is usually the first to be borrowed by every society, because the penalty for failing to do so can be immediate and fatal; but the West seems to have been preternaturally receptive to new technology, whether from its own inventors or from outside. Technological innovation, and the equally vital ability to respond to it, soon became an established feature of Western warfare.

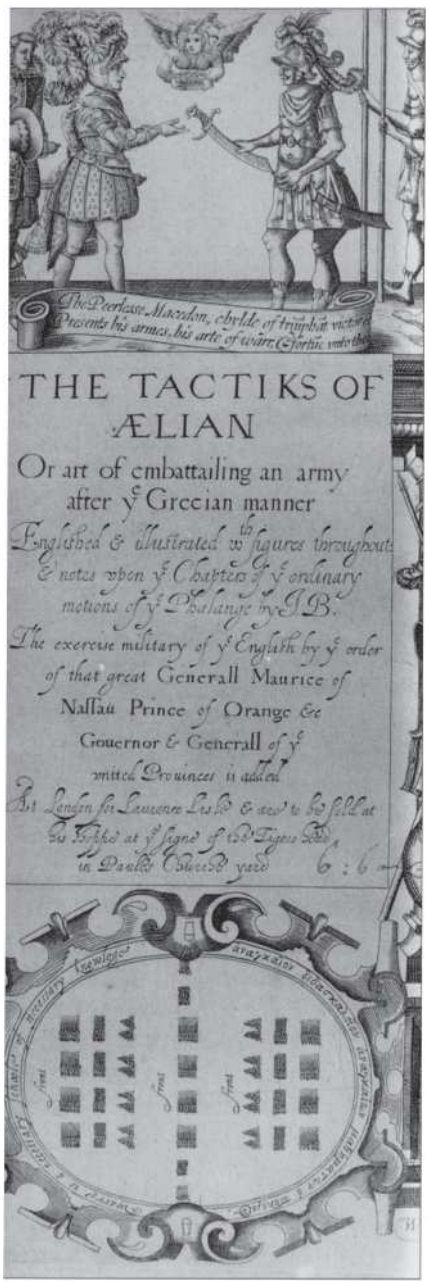
A 'technological edge' has rarely been sufficient in itself to ensure victory. As the Swiss military writer Antoine-Henri Jomini wrote in the early nineteenth century: 'The superiority of armament may increase the chances of success in war, but it does not of itself win battles.' Even in the twentieth century, the outcome of wars was determined less by technology than by better war plans, the achievement of surprise, greater economic strength, and, above all, superior discipline. Western military practice has always exalted

discipline as the primary instrument that turns bands of men fighting as individuals into soldiers fighting as part of organized units. Naturally, other factors play their part in the West as elsewhere – notably kinship, religion, patriotism, and gender. Many military formations, even in the eighteenth century, came from the same area and served under their local leaders almost as an extended family; the 'Protestant cause' proved a potent rallying cry for much of the sixteenth and seventeenth centuries in northern Europe; and 'Your country needs you' and similar slogans have assisted recruiting down to our own days. A survivor of the Italian expeditionary force sent by Benito Mussolini to fight in the Soviet Union in 1942 recalled that 'Our ethic was the honour of our home town, of our valley, of our battalion, which included our school friends, our cousins, the brothers of our sweethearts. That is what made us such magnificent warriors.'

Nevertheless, in the West discipline, in the twin forms of drill and long-term service, has incorporated and transcended all other concepts. The hoplites of fifth-century Greece, who were farmers first and soldiers second, turned out so regularly for battle in their phalanxes that they perfected a high degree of combat effectiveness, because the critical element of discipline is the ability of a formation to stand fast in the face of the enemy, whether attacking or being attacked, without giving way to the natural impulses of fear and panic. Repeated group activities, whether directly related to combat (firing practice) or not ('square-bashing'), all have the effect of creating artificial kinship groups – some of them, like the cohort, the company, and the platoon, further reinforced by the creation of small fellowships within the unit in order to increase cohesion and therefore combat efficiency even further. Once again, the crucial advantage lay in the ability to compensate for numerical inferiority, for whether defending Europe from invasion (as at Plataea in 479 BC, at the Lechfeld in AD 955, or at Vienna in AD 1683), or in subduing the Aztecs, Incas, and Mughals, Western forces have always been outnumbered by two to one and often by far more. Without superb discipline as well as advanced technology, these odds would have proved overwhelming. Even Alexander the Great and his 50,000 Greek and Macedonian troops could scarcely have destroyed the forces of the Persian empire in the fourth century BC without superior discipline, since the armies of his adversaries probably included more Greek soldiers, fighting with much the same equipment.

Discipline proved particularly important for Western armies in another way because, with surprisingly few exceptions, their wars have normally been won by infantry. The long reign of the hoplites and the legionaries was followed by a millennium in which men fighting on foot won most of the battles and bore the brunt of the more numerous sieges. The rise of missile weapons – first bows and then firearms – served only to reinforce the trend. However, withstanding a full cavalry charge without flinching always required arduous training, strong unit cohesion, and superb self-control. The same was true of war at sea: whether resisting boarding parties on a galley or enduring a cannonade aboard a ship of the line, discipline and training proved essential.

Two civilizations invented drill for their infantry at the same time: North China and Greece, both in the fifth century BC. Though drill continued in China, it died out in the West from the fifth century AD until the 1590s, when Maurice of Nassau sought to apply classical precedents to the Dutch army he commanded. Other Western states and the Ottoman empire soon followed the Dutch example, and marching in step and standing on parade became a permanent part of military life (even when, as for one British Guardsman in 1970, the ordeal proved overwhelming).



CONTINUITY IN WESTERN MILITARY THINKING

Reinforcing these elements, and indeed refining them, is a remarkable continuity in Western military thinking. The history of a compendium of Roman military practice, *Concerning Military Matters*, first composed by Flavius Renatus Vegetius around the year AD 390 (and revised into its final form about fifty years later), offers perhaps the most remarkable example. In the early eighth century the Northumbrian scholar Bede, on the north-western fringe of the former Roman world, had probably seen a copy; in the ninth century, the Carolingian ruler Lothar I commissioned an abridgement of the work to help him devise a successful strategy for resisting the Viking invasions; and in 1147, during a siege, Count Geoffrey Plantagenet of Anjou constructed and used an incendiary device thanks to a reading of Vegetius. The sustained popularity of *Concerning Military Matters* is further attested by the survival of more than 200 medieval manuscripts, and translations into many vernacular languages (English, French, German, Italian, Portuguese, and Spanish) starting in the late thirteenth century. An English translation appeared in 1767, and the young George Washington possessed and annotated a copy.

Other classical works on military affairs also enjoyed enduring popularity and influence. In AD 1594 Maurice of Nassau and his cousins in the Netherlands devised the crucial innovation of volley fire for muskets after reading the account in Aelian's *Tactics* (written c. AD 100) of the techniques employed by the javelin- and slingshot-throwers of the Roman army, and spent the next decade introducing to their troops the drills practised by the legions. In the nineteenth century, Napoleon III and Helmut von Moltke both translated the campaign histories of Julius Caesar, written almost 2,000 years earlier, while Count Alfred von Schlieffen and his successors in the Prussian General Staff expressly modelled their strategy for destroying France in the 'next war' upon the tactic so triumphantly used by Hannibal at the battle of Cannae in 216 BC. In 1914 it came within an ace of success; in 1940 it secured the defeat of France. More recently still, General George C. Marshall argued that a soldier should begin his military education by reading Thucydides' *History of the Peloponnesian War*, written almost 2,500 years before. The open-ended dedication to the study of military history was itself a form of technological superiority.

Such striking continuities derive from the fact that ancient theorists and modern practitioners of war shared not only a love of precedent, and a conviction that past examples could and should influence present practice, but also eclecticism: a willingness to accept and implement ideas from all quarters. Religious and ideological constraints have seldom interfered with either the conduct or the discussion of war in the West. On the one hand, until the nineteenth century the Laws of War were normally couched in

very general terms and lacked any effective machinery of enforcement. On the other hand, from Plato's Academy down to the modern war colleges, censorship in the West – both religious and secular – has been generally absent, allowing the full systematization of knowledge. Certain core ideas have therefore remained remarkably constant. These include not only the emphasis on the need for superior technology and discipline, but also a vision of war centred on winning a decisive victory that brought about the enemy's unconditional surrender. As Clausewitz put it: 'The direct annihilation of the enemy's forces must always be the dominant consideration' because 'Destruction of the enemy forces is the overriding principle of war.' Other theorists, however, stressed an alternative strategy for achieving total victory, attrition, of which the military history of the West also offers abundant examples: Fabius Cunctator ('the Delayer') of Rome, whose reliance on time, the 'friction' of campaigning, and the superior marshalling of resources eventually reversed the verdict of Cannae; the duke of Alba in the service of sixteenth-century Spain; Erich von Falkenhayn in World War I.

Yet the overall aim of Western strategy, whether by battle, siege, or attrition, almost always remained the total defeat and destruction of the enemy, and this contrasted starkly with the military practice of many other societies. Many classical writers commented on the utter ruthlessness of hoplites and legionaries and, in the early modern period, the phrase *bellum romanum* ('the Roman way of war') acquired the sense of 'war without mercy' and became the standard military technique of Europeans abroad. Thus the indigenous inhabitants of New England strongly disapproved of the colonists' way of war. 'It is too furious and slaies too many men', one warrior told an English captain reproachfully in the 1630s. The captain did not deny it: 'I dare boldly affirm' that the Pequots, Narragansett, and others 'might fight seven yeares and not kill seven men' because they fought 'more for pastime, then to conquer and subdue enemies'. A decade later Roger Williams, a colonial governor, opined that the Native Americans' 'warres are farre lesse bloudy and devouring than the cruell warres of Europe; and seldome twenty slaine in a pitcht field'. In 1788, west African warlords informed European observers 'that the sole object of their wars was to procure slaves, as they could not obtain European goods without slaves, and they could not get slaves without fighting for them'. Clearly peoples who fought to enslave rather than to exterminate their enemies would, like the indigenous inhabitants of the Americas, south-east Asia, and Siberia before them, prove ill prepared to withstand the unfamiliar tactics of destruction employed against them by the Europeans.

Opposite: When in 1616 John Bingham published an English translation of the *Tactics* of Aelian, written c. AD 100 and describing the drills of the Roman and Macedonian armies, he added a section on the 'exercise military' recently developed by Maurice of Nassau, leader of the Dutch Republic. This was justified, since the military reforms of the Dutch army had been directly influenced by reading Aelian and other classical texts; less reasonable was the scene at the top of Bingham's frontispiece, in which Alexander the Great ('the peerlesse Macedon' on the right) is shown handing over his sword, and by implication his military genius and pre-eminence, to Maurice.

ECLECTICISM

The steady spread of Western military power rested on far more than the triad of technology, discipline, and aggressive military tradition. Many other military traditions (such as those of China and Japan) also placed a high premium on technology and discipline, and the teachings of Sun Tzu in the sixth century BC strikingly anticipated many positions later developed by Clausewitz and Jomini. However, the West differed

in two crucial respects: its unique eclecticism, allowing the adoption and integration of new military practices as need arose, and its ability to fund every change.

Areas dominated by a single hegemonic power, such as Tokugawa Japan or Mughal India, faced relatively few life-threatening challenges and so military traditions changed slowly if at all; but in areas contested by multiple polities the need for military innovation could become extremely strong. Admittedly, when the states remained relatively underdeveloped, with backward political and economic institutions and infrastructures, the tension between challenge and response seldom resulted in rapid and significant change. But where competing states were both numerous and institutionally strong, the challenge-and-response dynamic could become self-sustaining, with growth (in effect) begetting growth.

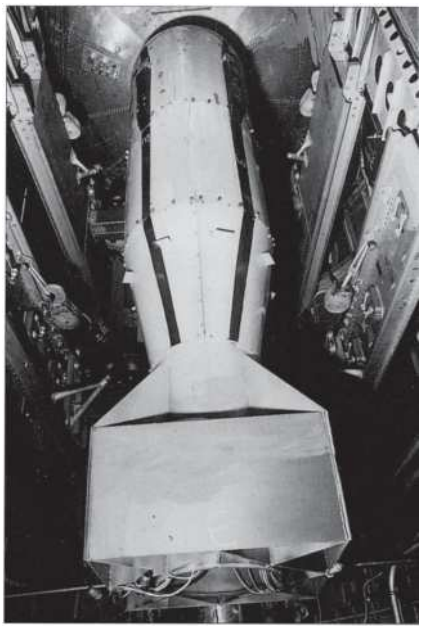
Military historian Clifford J. Rogers has compared this mechanism to the concept in evolutionary biology known as 'punctuated equilibrium', in which development proceeds by short bursts of rapid change interspersed with longer periods of slower, incremental alteration. Thus, in the fourteenth century, after a long period in which infantry had slowly but steadily increased its importance, Swiss pikemen and English archers suddenly and dramatically enhanced its role; then, after about a century of experiment, gunpowder artillery began in the 1430s to revolutionize siegecraft; and about a century after that, following constant (and extremely expensive) experiment, a new defensive technique known as the artillery fortress brought positional warfare back into balance. Each innovation broke the prevailing equilibrium and provoked a phase of rapid transformation and adjustment.

The ability to adopt and reproduce unfamiliar military techniques and tactics required more than changes in the art of war. Above all, any military system based upon maintaining a technological edge is, by definition, expensive in terms of material resources. *Labour*-intensive systems, which rely for their impact upon concentrating an overwhelming number of men, may only require a society to mobilize its adult males – probably for a brief period – equipped with traditional weapons (sometimes, as in the case of Japanese or early medieval swords, weapons of considerable antiquity that could, like Excalibur, be re-used). The financial burden of fighting may therefore be spread over a wide social group and even over several generations. A *capital*-intensive military system, by contrast, requires the stockpiling of military hardware (a wide panoply of weapons that, although extremely expensive, may soon become outdated) as well as military software (military theory, tactics, and specialized skill-sets) – not only the latest equipment but also the knowledge to use it to maximum effect. The principal attraction of capital-intensive warfare, however, lay in the combination of high initial cost with low maintenance. Thus Harlech castle, one of the vast fortifications constructed by Edward I in Wales, cost almost an entire year's revenue to build, but in 1294 its garrison of only thirty-seven soldiers successfully defended it against attack. The king's strategic vision anticipated that of the 'Manhattan

The search for a 'wonder weapon' that might secure instant victory obsessed both sides in World War II. Germany developed a liquid-fuel ballistic missile, yet despite huge expenditure (prompted by unfounded fears that the Allies were pursuing similar research) the first 'Vengeance Weapon 2' (V-2 rocket) struck London only in September 1944. Shortly afterwards, General Walter Dornberger (the project director, left) and Dr Wernher von Braun (the chief scientist, right) received from Hitler a telegram of congratulations and a Knight's Cross (which both of them wear in the photograph, taken at a celebratory dinner). However, the 3,000 or so rockets launched did little to stave off Germany's defeat.

Project', which spent millions of dollars in the production of atomic devices which, delivered on two August mornings in 1945 by just two American bombers, precipitated the unconditional surrender of imperial Japan and the millions of its troops still in arms all over south-east Asia.

After the introduction of gunpowder weapons and complex fortifications, the cost of each war proved significantly higher than that of the last, while the cost of military hardware rose to such a degree that only a centralized state could afford to buy it. Creating the means to fund such an expensive form of warfare clearly served to enhance the power of the state in the West, with each change in the size or equipment of armed forces requiring both new efforts to extract resources from the subject population and an expanded bureaucratic structure to handle them. Naturally, prolonged financial pressure often provoked opposition among those required to pay; but that, too, could lead to increased control – and therefore increased internal power – by the state over its subjects, making possible further military innovations and developments. This proved particularly true of wars waged to gain or extend hegemony, which required the steady transfer of money and munitions raised by the central government to distant theatres, since this simultaneously promoted higher taxes, greater borrowing, and increased integration. Military activity and state formation in the West therefore became inextricably linked: states made war but wars also made (and could sometimes break) states. To use another biological analogy, one is reminded of the 'double helix' structure of the DNA molecule, with two complex spirals interacting at various discrete points.



Atomic bombs were developed at great cost by the Western Allies, largely because they feared that Germany had already begun nuclear research. Nevertheless, no weapons became available until after Germany's defeat: only in July 1945 was an atomic bomb tested successfully. Two more were ready for use against Japan, along with test-unit replicas so that crews would know how to handle them (the photograph shows one of these in a B-29 aircraft bomb bay). Unlike Germany's V-2 rockets, this investment brought spectacular results – the first bomb fell on Hiroshima on 6 August 1945, the second on Nagasaki three days later, and Japan offered to surrender the following day.

The complexity of this image serves as a reminder that imitating the Western way of war involved adaptation at many levels. Simply copying weapons picked up on the battlefield could never suffice: it also required the 'replication' of the entire social and economic structure that underpinned the capacity to innovate and respond swiftly. 'Westernizing war' depended upon the ability of warriors, traditionally one of the most conservative groups, to accept both the need for change and the need for instruction from 'inventors' from a different (and normally inferior) social background. It also presupposed an ability on the part of the state to mobilize resources rapidly, in large quantities, and often for long periods so that any technological inferiorities revealed in the course of the conflict could be remedied in time. Naturally, the less developed the economy, the less easily the cost of military preparedness could be absorbed – even within the West. Thus in 1904, France spent 36 per cent of its budget on the army whereas Germany spent 20 per cent; however, in real terms this meant that France spent 38 million francs as against 99 million francs by Germany. France thus devoted twice as much of its budget in order to spend only half as much as its major rival. The continuation of this pattern for much of the next decade helps to explain why France found itself at such a disadvantage when war broke out in 1914.

The introduction of ingenious new taxes and other means of 'instant' wealth extraction proved no less important for feeding Mars than the development of new techniques

for mobilizing credit – such as national banks, banknotes, letters of credit, and bonds – because few states ever manage to finance a major war out of current income. Creating and (even more) conserving an adequate credit base proved highly elusive, however. In the evocative phrase of an English political economist, Charles Davenant, writing in 1698:

> Of all beings that have existence only in the minds of men, nothing is more fantastical and nice than credit. It is never to be forced; it hangs upon opinion; it depends upon our passions of hope and fear; it comes many times unsought for, and often goes away without reason; and when once lost, is hardly to be quite recovered.

Nevertheless, in England at least, by then credit seemed to exist everywhere. Contemporaries estimated that two-thirds of all commercial transactions involved credit rather than cash, and by 1782 the Bank of England alone handled bills of exchange worth a total of more than £2 million annually – a stunning extension of the available monetary stock.

Borrowing to finance wars rests not only upon the existence of extensive private credit, but also upon a convergence of interest between those who make money and those who make war, for public loans depend on finding both borrowers willing to lend as well as taxpayers willing and able to provide ultimate repayment. In England, tax revenues increased six-fold in the century following 1689. As an alarmed member of Parliament (MP) exclaimed:

> Let any gentleman but look into the statute books lying upon our table, he will there see to what a vast bulk, to what a number of volumes, our statutes relating to taxes have swelled … It is monstrous, it is even frightful to look into the Indexes, where for several columns together we see nothing but Taxes, Taxes, Taxes.

And yet most MPs, who paid the taxes themselves, accepted their necessity; and so did the majority of the political nation. By 1783, when the unsuccessful American war came to an end, Great Britain's national debt stood at £245 million, equivalent to more than twenty years' revenue; and yet many of the loans had been contracted at just 3 per cent interest. In the Western way of war, 'who pays and why' is as important as 'who fights and why', and the ability to organize long-term credit (and therefore the existence of a secure and sophisticated capital market) to fund government borrowing needs in wartime represented a critical 'secret weapon' of the West.

It also served to define which states could adopt the Western way of war. Mainly because of the cost of keeping abreast of changing technology and of maintaining the resources to deploy it effectively, relatively few states proved able to remain in the race for long. Some (like Denmark after 1660) proved too small or (like Poland after 1667) too fragmented; others (like Switzerland) chose neutrality. Others still, particularly in regions with less developed economies, directed the energies of their armed forces towards containing and combating internal threats. Conversely, although not all Western states proved able to fight in the Western way, certain other countries did. Japan offers the classic example, thanks to the vital combination of discipline, doctrinal flexibility, and a sophisticated

financial structure which, in the sixteenth century and again in the nineteenth, permitted both the acquisition of expensive military technology and the equally expensive successive adaptations required to keep abreast if not ahead of all rivals.

THE DOMINANT MILITARY TRADITION

These various developments possessed a significance far beyond the region of their origin, because aggression – the 'export of violence' – played a central role in the 'rise of the West'. For most of the past 2,500 years, military and naval superiority rather than better resources, greater moral rectitude, irresistible commercial acumen, or, until the nineteenth century, advanced economic organization underpinned Western expansion. This military edge meant that the West seldom suffered successful invasion itself. Armies from Asia and Africa rarely marched into Europe, and many of the exceptions – Xerxes, Hannibal, Attila, the Arabs, and the Turks – achieved only limited success. None encompassed the total destruction of their foe. Conversely, Western forces, although numerically inferior, not only defeated the Persian and Carthaginian invaders but also managed to extirpate the states that sent them. Even the forces of Islam never succeeded in partitioning Europe into 'spheres of influence' in the Western manner. On the other hand, time and again a favourable balance of military power critically advanced Western expansion. As Jan Pieterszoon Coen, one of the founders of Dutch power in Indonesia, observed in 1614,

> Trade in Asia should be conducted and maintained under the protection and with the aid of our own weapons, and those weapons must be wielded with the profits gained by trade. So trade cannot be maintained without war, nor war without trade.

By 1650, a generation after these words were written, the West had already achieved military – and therefore economic – mastery in four separate areas: south, central, and north-east America; Siberia; some coastal areas of sub-Saharan Africa; and much of the Philippines. In addition, its ships sailed at will all over the world's oceans and, in most of them, managed to regulate and in some cases to control the seaborne trade of commercial rivals.

In 1500, the states of western Europe laid claim to less than one-tenth of the world's habitable land; yet by 1775 Europeans, or those of European descent, could lay claim to just over one-third, as well as all its oceans, and by 1914 they had increased that total to almost 85 per cent of the world's habitable land. Even in the twenty-first century, although the area under their direct control has shrunk dramatically, the ability of Western armed forces to intervene directly and decisively by land and sea more or less wherever they choose serves to safeguard the economic interests of its component states and to perpetuate a favourable balance of global power. The military abilities that preserved the West at Salamis (480 BC) and the Lechfeld (AD 955), and expanded its dominance at Tenochtitlan (1519–21) and Plassey (1757), for better or worse still sustain its preponderant role in the world today. The rise of the West is inconceivable without them.