In 1898 there was published in Paris a six-volume work entitled La Guerre Future; aux points de vue technique, economique et politique. This was a translation of a series of articles which had been appearing in Russia, the fruit of collective research but masterminded and written by one of the leading figures in the world of Russian finance and industry, Ivan (or Jean de) Bloch (1836–1902). Sometimes described as "a Polish banker," Bloch was in fact an entrepreneur almost on the scale of the Rothschilds in Western Europe or Carnegie in the United States. He had made his money in railroad promotion, and then turned to investment on a large scale, promoting and sharing in the great boom in the Russian economy of the 1890s. He had written prolifically about the economic problems of the Russian Empire, and was increasingly alarmed by the degree to which they were complicated, then as now, by the military need to keep abreast, in an age of rapidly developing technology, with the wealthier and more advanced states of the West. Having been responsible for organizing the railway supply for the Russian armies in their war with the Ottoman Empire in 1877–78, Bloch had an unusual grasp of military logistics. And he brought to the study of war an entirely new sort of mind, one in which the analytical skills of the engineer, the economist, and the sociologist were all combined. His book was in fact the first work of modern operational analysis, and nothing written since has equalled it for its combination of rigor and scope.

Only the last of the six volumes was translated into English, under the title Is War Now Impossible? This volume conveniently summarizes the argument of the entire work, and it was itself summarized by the author in an interview with the English journalist W.T. Stead which is printed as an introduction to the book. Bloch began by stating his conclusions: war between great states was now impossible—or, rather, suicidal. "The dimensions of modern armaments and the organisation of society have rendered its pros-
ecution an economic impossibility."  This could be almost mathematically demonstrated. The range, accuracy, and rate of fire of modern firearms—rifles lethal at 2000 meters, artillery at 6000—made the "decisive battles" which had hitherto determined the outcome of wars now impossible. Neither the infantry could charge with the bayonet nor cavalry with the saber. To protect themselves against the lethal storm of fire which would be unleashed on the modern battlefield, armies would have to dig themselves in: "the spade will be as indispensable to the soldier as his rifle. . . . That is one reason why it will be impossible for the battle of the future to be fought out rapidly. . . . Battles will last for days, and at the end it is very doubtful whether any decisive victory can be gained."  

Thus far Bloch was not breaking new ground. He was only setting out a problem which intelligent officers in all European armies had been studying ever since the experiences of the Franco-Prussian War in 1870 and the Russo-Turkish War in 1877-78 had shown (quite as clearly as, and rather more immediately than, those of the American Civil War) the effect of modern firearms on the battlefield. The introduction of "smokeless powder" in the 1880s, increasing the range and accuracy of all firearms and making possible the near invisibility of their users, would, it was generally agreed, complicate the difficulties of the attack yet further. But even these, it was widely assumed, would not change the fundamental nature of the problem.

The answer, it was believed, lay in the development of the firepower of the assailant, especially of his artillery. The assaulting infantry had to approach closely enough, making all use of cover, to be able to deploy a hail of rifle fire on the defenders' positions. Artillery must cooperate closely, keeping the defenders' heads down with shrapnel and digging them out of their trenches with high explosives. As for machine-guns, these, with their mobility and concentrated firepower, were seen as likely to enhance the power of the attack rather than the defense. "Fire is the supreme argument,‖ declared Colonel Ferdinand Foch in his lectures at the École de Guerre in 1900. 4 "The superiority of fire . . . becomes the most important element of an infantry's fighting value.‖ But the moment would always come when the advance could get no further: "Before it is a zone almost impassable; there remain no covered approaches; a hail of lead beats the ground . . . to flee or

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2. Ibid., p. xi.
3. Ibid., p. xxviii.
to charge is all that remains.” Foch, and the majority of French thinkers of his time, believed that the charge was still possible and could succeed by sheer dint of numbers: “To charge, but to charge in numbers, therein lies safety. . . . With more guns we can reduce his to silence, and the same is true of rifles and bayonets, if we know how to make use of them all.” Others were less sure. The Germans, who still after thirty years had vivid memories of the slaughter of their infantry at Gravelotte, preferred if possible to pin the enemy down by fire from the front but attack from a flank. Nobody was under any illusion, even in 1900, that frontal attack would be anything but very difficult and that success could be purchased with anything short of very heavy casualties. There would probably indeed have been a wide measure of agreement with Bloch’s calculation, that a superiority at the assaulting point of 8 to 1 would be necessary to ensure success.\(^6\)

*Bloch’s War of the Future: Society versus Society*

It was in the further conclusions which Bloch deduced from his study of the modern battlefield that he outpaced his contemporaries—not so much because they disagreed with him, but because they had given the problems which he examined virtually no thought at all.

What, asked Bloch, would be the eventual result of the operational deadlock that was likely to develop on the battlefield? “At first there will be increased slaughter—increased slaughter on so terrible a scale as to render it impossible to push the battle to a decisive issue. . . . Then, instead of a war fought out to the bitter end in a series of decisive battles, we shall have to substitute a long period of continually increasing strain upon the resources of the combatants.” This, would involve “entire dislocation of all industry and severing of all the sources of supply by which alone the community is enabled to bear the crushing burden. . . . That is the future of war—not fighting, but famine, not the slaying of men but the bankruptcy of nations and the break-up of the whole social organisation.”\(^7\) In these circumstances the decisive factors would be “the quality of toughness and capacity for endurance, of patience under privation, of stubbornness under reverse or disappointment. That element in the civil population will be, more than

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5. Ibid., pp. 365–366.
7. Ibid., p. xvii.
anything else, the deciding factor in modern war. . . . Your soldiers," concluded Bloch grimly, "may fight as they please; the ultimate decision is in the hands of famine." And famine would strike first at those proletarian elements which, in advanced industrial societies, were most prone to revolution.

It is important to recognize that Bloch got a great deal wrong. He assumed that the prolonged feeding and administration of the vast armies which rail transport made possible would be far beyond the capacity of the military authorities, and that armies in the field would quickly degenerate into starving and mutinous mobs. He predicted that the care of the sick and wounded would also assume unmanageable proportions, and that on the battlefield the dead and dying would have to be heaped up into macabre barriers to protect the living from enemy fire. As did many professional soldiers, Bloch doubted the capacity of reservists fresh from civil life to stand up to the strain of the battlefield: "it is impossible to rely upon modern armies submitting to sacrifice and deprivation to such an extent as is desired by military theorists who lose sight of the tendencies which obtain in Western society." In fact the efficiency with which armies numbering millions were to be maintained in the field, the success with which the medical services were, with certain grisly exceptions, to rise to the enormous task that confronted them and the stoical endurance displayed by the troops of all belligerent powers in face of hardships worse than Bloch could ever have conceived were perhaps the most remarkable and admirable aspects of the First World War. Bloch, like so many pessimistic prophets (including those of air power a generation later), underestimated the capacity of human societies to adjust themselves to adverse circumstances.

But Bloch also had astonishing insights. The scale of military losses, he pointed out, would depend on the skill of the commanders, and "it must not be forgotten that a considerable number of the higher officers in modern armies have never been under fire"; while among junior officers the rate of casualties would, if they did their job as leaders, be inordinately high. Finally, there was the problem of managing the wartime economy; what were the long-term effects of that likely to be? "If we suppose," Bloch surmised, "that governments will be forced to interfere in the regulation of prices and to support the population, will it be easy after the war to abandon this practise

8. Ibid., p. xlvi.
and re-establish the old order?”

Win or lose, therefore, if war came “the old order” was doomed—by transformation from above if not by revolution from below.

This remarkably accurate blueprint for the war which was to break out in Europe in 1914, last for four and a half years, and end only with the social disintegration of the defeated belligerents and the economic exhaustion of all was the result, not of second-sight, but of meticulous analysis of weapons capabilities, of military organization and doctrine, and of financial and economic data—five fat volumes which still provide a superb source book for any student of the military, technological, and economic condition of Europe at the end of the nineteenth century. Nobody took Bloch’s economic arguments and attempted to disprove them. They were just ignored. Why, it may be asked, was so little account taken of them by statesmen and military leaders? Why did they continue on a course which led ineluctably to the destruction of the old order which Bloch so unerringly predicted? The question is one uncomfortably relevant to our own times.

The answer is of course that societies, and the pattern of international relationships, cannot be transformed overnight on the basis of a single prophetic insight, however persuasively it may be argued. Bloch’s thinking and influence were indeed two elements in persuading Czar Nicholas II to convene the first International Peace Conference which met at the Hague in May 1899, and were even more significant in mobilizing public support throughout Europe for that conference’s objectives. But the conference was no more than a ripple in the current of international politics. A more immediate problem, as Bloch himself repeatedly pointed out, was that there existed nowhere in Europe bodies charged with the task of thinking about the problems of warfare in any kind of comprehensive fashion, rather than about the narrowly professional questions that concerned the military. As for the military specialists, they were not likely to admit that the problems which faced them were insoluble, and that they would be incapable in the future of conducting wars so effectively and decisively as they had in the past.

Lessons of the Boer War

The force of Bloch’s arguments, however, was powerfully driven home when, within a few months of the publication of La Guerre Future, there broke

10. Ibid., pp. 335, 314.
out in South Africa a war in which for the first time both sides were fully equipped with the new technology—magazine-loading small-bore rifles, quick-firing artillery, machine guns—and things turned out on the battlefield exactly as he had predicted. The British army, moving in close formations and firing by volleys, were unable to get anywhere near an enemy whom they could not even see. At Spion Kop, at Colenso, at the Modder Rover, and at Magersfontein, their frontal attacks were driven back by the Boers with horrifying losses. As the leading British military theorist, Colonel G.F.R. Henderson, who accompanied the army in South Africa, wrote shortly afterwards:

There was a constant endeavor to make battle conform to the parade ground . . . to depend for success on courage and subordination and to relegate intelligence and individuality to the background . . . the fallacy that a thick firing line in open country can protect itself, outside decisive range, by its own fire, had not yet been exposed. It was not yet realised that the defender, occupying ingeniously constructed trenches and using smokeless powder, is practically invulnerable to both gun and rifle.11

Unsympathetic continental observers tended to play down the significance of the South African experience on the grounds that the British army and its commanders were unsuitably trained for confronting a “civilized” adversary, having been spoiled by the easy victories in Egypt and the Sudan. Further, they suggested that the differences in terrain made the lessons to be learned from that war, as they had made those from the American Civil War, irrelevant in the European theater. The British themselves, while unable to deny the unsuitability of their traditional tactics and training to the transformed conditions of warfare, could nonetheless point out that, once they had mastered the necessary techniques, they had been able successfully to go over to the offensive, and had then rapidly won the war. This they had done by pinning down the Boers in their positions by firepower and maneuvering round their flanks with cavalry—cavalry used not in its traditional role for shock on the battlefield, but to develop the kind of strategic mobility which was essential if the problems created by the new power of the defensive

11. George F.R. Henderson, The Science of War (London, 1905), p. 411. It is ironic to read in an article which Henderson had written shortly before the war: “Neither smokeless powder nor the magazine rifle will necessitate any radical change. If the defense has gained, as has been asserted, by these inventions, the plunging fire of rifled howitzers will add a more than proportional strength to the attack. And if the magazine rifle has introduced a new and formidable element into battle, the moral element still remains the same.” Ibid., pp. 159–160.
were to be overcome. When in 1901 Bloch described to an audience at the British Royal United Services Institution how the experience of the British army in South Africa, repeated as it would be in Europe on an enormous scale, precisely illustrated his arguments, his audience was able to point out that in fact Lord Roberts had shown how to combine the tactical advantages of firepower with the strategic advantages of horse-borne mobility to secure precisely those decisive results which Bloch had maintained would, in future, be impossible.12

A study of the voluminous military literature of the period shows that between 1900 and 1905 a consensus developed among European strategic thinkers over two points. The first was the strategic importance of cavalry as mobile firepower. If the firepower of the defense made it now impossible for cavalry to assault unshaken infantry—a view which had been reluctantly accepted ever since the disasters of the Franco-Prussian War of 1870—cavalry would now develop their own firepower, enhanced by mobile quick-firing artillery and machine guns, and exploit opportunities on a scale undreamed of since the days of the American Civil War. The South African experience indeed sent back intelligent cavalrymen, especially in England, to studying the Civil War, often for the first time.13 In the British army, it was laid down that the carbine or rifle would henceforth be “the principal weapon” for cavalry. But for most cavalrymen this was going altogether too far. In no country in Europe was this proudest, most exclusive, most anachronistic of arms prepared to be, as they saw it, downgraded to the role of mounted infantry. That kind of thing could be left to colonial roughriders. Writing as late as 1912, the German general Friedrich von Bernhardi bitterly observed that “The cavalry looks now . . . upon a charge in battle as its paramount duty; it has almost deliberately closed its eyes against the far-reaching changes in warfare. By this it has itself barred the way that leads to greater successes.”14 Within the cavalry in every European army therefore a controversy raged which was settled only by the kind of compromise expressed by the British Cavalry Manual of 1907:

13. G.F.R. Henderson had been writing and lecturing on the American Civil War well before 1899 and Lord Roberts was to acknowledge the influence of those writings on his own operational planning in South Africa. After 1901 the Civil War became the main topic for historical study at the British Army Staff College at Camberley. Jay Luvaas, The Military Legacy of the Civil War (Chicago: University of Chicago Press, 1959), p. 229.
The essence of the cavalry spirit lies in holding the balance correctly between fire power and shock action. . . . it must be accepted as a principle that the rifle, effective as it is, cannot replace the effect produced by the speed of the horse, the magnetism of the charge, and the terror of cold steel.  

The mood of the cavalryman on the eve of the First World War is perhaps best captured in an analysis of British military doctrine published in 1914:

Technically the great decisive cavalry charge on the main battlefield is a thing of the past, yet training in shock tactics is claimed by all cavalry authorities to be still essential to the strategic use of the arm, and even on the battlefield shock tactics may, under special conditions, conceivably still be possible, while brilliant opportunities will almost certainly be offered for the employment in perhaps a decisive manner of the power conferred by the combination of mobility with fire action. . . . For whatever tactics are adopted, the desire to take the offensive will always remain the breath of life for cavalry, and where shock action is impossible, the cavalryman must be prepared to expend, rifle in hand, the last man in an advance on foot, if the victory can thus only be achieved.

So training in shock action continued; for even the reformers had to admit that cavalry would have to meet and defeat the enemy’s cavalry, presumably in a gigantic mêlée, before it could fulfil its strategic task. “The opening of future wars,” wrote von Bernhardi in 1912, “will, therefore, in all likelihood be characterised by great cavalry combats.”

So the cavalry continued to practice sword drill; and the infantry continued, for the same reason, to practice bayonet drill. The German writer Wilhelm Balck saw no reason to alter, in the 1911 edition of his huge study of Tactics, the doctrine preached in the first edition of 1896:

The soldier should be taught not to shrink from the bayonet attack, but to seek it. If the infantry is deprived of the arme blanche, if the impossibility of bayonet fighting is preached . . . an infantry will be developed which is unsuitable for attack and which moreover lacks a most essential quality, viz. the moral power to reach the enemy’s position . . . [And he went on to quote from the Russian General Dragomirov, a well-known fanatic on the subject:] “The bayonet cannot be abolished for the reason, if for no other, that it is the sole and exclusive embodiment of that will-power which alone,

15. Quoted by Luvaas, Military Legacy of the Civil War, p. 107.
both in war and in everyday life attains its object, whereas reason only facilitates the achievement of the object.”18

The British General Staff manuals expressed the same idea slightly differently: “The moral effect of the bayonet is out of all proportion to its material effect, and not the least important of virtues claimed for it is that the desire to use it draws the attacking side on.” To deprive the infantry of their bayonets would be like depriving the cavalry of their swords; it “would be to some extent to take away their desire to close.”19

That brings us to the second point over which a rather more troubled consensus developed among European military thinkers as a consequence of the South African War: the unprecedented difficulty of carrying through frontal attacks, even with substantial artillery support, would now make necessary more extended formations in the attack. On this point also there had been a continuing controversy ever since 1870. The normal formation for the infantry attack, inherited from the Napoleonic era, consisted of three lines. First came the skirmishers in open formation, making maximum use of cover so as to reach positions from which they could bring a concentrated fire on the enemy in order, in cooperation with the artillery, to “win the fire fight.” Behind them came the main assault line, normally in close formation under the immediate control of their officers, to assault with the bayonet. Finally came the supports, the immediate tactical reserve.

The German army, remembering the massacres of their infantry in the assault at the battles of Wörth and St. Privat in August 1870, had always inclined to the view that once the attacking infantry came under fire, close formations in the old style would be impossible. The main assault line would itself now have to scatter and edge its way forward to thicken up the skirmishers or extend their line, feeling for an exposed flank. Effectively it was now the skirmishers who bore the brunt of the attack, and success could be achieved only by the dominance of their fire. The bayonet, if used at all, would only gather up the harvest already reaped by the rifle and the gun.20

This was the doctrine against which Dragomirov and his disciples everywhere set their faces. It must be admitted that it did present real problems. Once the assaulting troops were scattered and left to themselves, out of range of the officers whose task it was to inspire them and the non-coms

19. Altham, Principles of War, p. 80.
whose job it was to frighten them, what incentive would there be for them to go forward in face of enemy fire? Once they went to ground behind cover, would they ever get up again? There were several notorious instances in 1870 when substantial proportions of German assaulting formulations had unaccountably “got lost.” Colonel Ardent du Picq, who had been killed in that war and whose posthumously published *Etudes sur le Combat* contain some of the shrewdest observations on troop morale that have ever been written, had described the terrifying isolation of the soldier on a modern battlefield (even before the days of smokeless powder) once he was deprived of the solid support of comrades on either side which had enabled men to face death ever since the days of the Roman legions. “The soldier is unknown even to his comrades; he loses them in the disorienting confusion of battle, where he fights as a lonely individual; solidarity is no longer guaranteed by mutual surveillance.”21 All now depended on the morale and reliability of the smallest units; “by force of circumstances all battles nowadays tend more than ever to become soldiers’ battles.”22 How could these lonely frightened men, deprived of the intoxication of drums and trumpets, the support of their comrades, the inspiration of their leaders, find within themselves the courage to die?

The French army, its traditions of martial leadership and close formations for the attack antedating even the Napoleonic era, was particularly reluctant to accept the logic of the new firepower. For a decade after 1870 its leaders had attempted to impose the open tactical formations on their units, but they never really succeeded. By 1884 regulations were again prescribing “the principle of the decisive attack, head held high, unconcerned about casualties.” The notorious regulations of 1894 laid it down that attacking units should advance elbow to elbow, not breaking formation to take advantage of cover, but assaulting *en masses* “to the sound of bugles and drums.”23 Stirring stuff, and the French were not alone in preferring it that way. So did the Russians, in spite of their chastening experiences before Plevna in 1877; and so did the British. They also, after a decade of uncertainty inspired by the events of 1870, returned to their old traditions. In the regulations of 1888, wrote Colonel Henderson:

22. Ibid., p. 87.
The bayonet has once more reasserted itself. To the second line, relying on cold steel only, as in the days of the Peninsula, is entrusted the duty of bringing the battle to a speedy conclusion. . . . The confusion of the Prussian battles was in a large degree due to their neglect of the immutable principles of tactics and . . . they are a bad model for us to follow. The sagacity of our own people is a surer guide and if, after 1870, we wanted a model, the tactics of the last great war waged by English-speaking soldiers would have served us better.

The Americans on both sides had always launched frontal attacks in close formations, having found that "to prevent the battle degenerating into a protracted struggle between two strongly entrenched armies, and to attain a speedy and decisive result, mere development of fire was insufficient." The lesson was clear: "close order whenever it is possible, extended order only when it is unavoidable." 24

By 1900 Henderson was a sadder and a wiser man. Events in South Africa had once again shown the world that under fire close order was not possible; and the argument that it was good for morale was seen to be ludicrous. "When the preponderant mass suffers enormous losses; when they feel, as others will feel, that other and less costly means of achieving the same end might have been adopted, what will become of their morale? . . . The most brilliant offensive victories," went on Henderson, "are not those which were mere 'bludgeon work' and cost the most blood, but those which were won by surprise, by adroit manoeuvre, by mystifying and misleading the enemy, by turning the ground to the best account, and where the butchers' bill was small." 25 A generation later Henderson's countryman Liddell Hart was to elaborate this insight into an entire philosophy of war, but long before 1914 the British army was to discard this subversive suggestion that discretion might be the better part of valor.

Over the matter of close versus open formations for the attack, however, the South African experience was generally seen to be decisive. Even the French high command, while attributing the catastrophes which had overtaken the British entirely to Anglo-Saxon ineptitude, rewrote its regulations in 1904, abandoning the coude à coude formations of 1894 and prescribing advance by small groups covering each other by fire—the kind of infantry tactics that were to become general in the Second World War. 26 It is doubtful

25. Ibid., pp. 373-375.
however whether these eminently sensible guidelines made any impression on an army which had been thrown, in the aftermath of the Dreyfus case, into a state of administrative confusion verging on anarchy.\textsuperscript{27} Certainly the performance of the French infantry in 1914 shows no evidence of it. In any case, such tactics demanded of the ordinary soldier a degree of skill and self-reliance such as neither the French nor any other European army (with the possible exception of the Germans) had hitherto expected, or done anything to inculcate, either in their junior officers or in their other ranks.

And there remained unsolved the nagging, fundamental problem of morale—a problem all the greater since a large part of all armies would now be made up of reservists whose moral fiber, it was feared, would have been sapped by the enervating influences of civil life. Concern about the morale of the army was thus generalized, among European military thinkers, into concern about the morale of their nations as a whole; not so much whether they would stand up to the economic attrition which Bloch was almost unique in foreseeing, but whether they could inculcate into their young men that stoical contempt for death which alone would enable them to face, and overcome, the horrors of the assault.\textsuperscript{28}

\textit{The Russo-Japanese War and the Superiority of the Offensive}

It was while this concern was at its height that war broke out between Japan and Russia in the Far East. In February 1904 the Japanese navy launched a surprise attack on the Russian fleet at Port Arthur and, with local command of the sea thus secured, effected amphibious landings on the Korean and Manchurian coasts. It took the Japanese army a year to establish themselves in the disputed province of Manchuria, capturing Port Arthur by land assault and fighting its way north along the railway to capture the main Russian forward base at Mukden in a two-week battle involving altogether over half a million men. It was a war fought on both sides with the latest products of


\textsuperscript{28} “The steadily improving standards of living tend to increase the instinct of self-preservation and to diminish the spirit of self-sacrifice. . . . The fast manner of living at the present day undermines the nervous system, the fanaticism and religious and national enthusiasm of a bygone age are lacking, and finally the physical powers of the human species are also partly diminishing.” Balck, \textit{Tactics}, Vol. 1, p. 194. For equally gloomy British assessments see T.H.E. Travers, “Technology, Tactics, and Morale: Jean de Bloch, the Boer War, and British Military Theory 1900–1914,” \textit{Journal of Modern History}, Vol. 51, No. 2 (June 1979), pp. 264–286. This article is of seminal importance in showing the connection between tactical doctrine and national morale before 1914.
modern technology: not only magazine rifles and quick-firing field artillery but mobile heavy guns, machine guns, mines, barbed wire, searchlights, telephonic communications and, above all, trenches. The Russo-Japanese War proved beyond any doubt that the infantryman’s most useful weapon, second only to his rifle, was a spade. Though the war inevitably had unique characteristics—both sides fought at the end of long supply lines, in sparsely inhabited country, which sharply limited the scale of force they could employ—it could not be dismissed, as so many conservative thinkers on the Continent dismissed the Boer War, as a colonial irrelevance. The Russian army was one of the greatest—certainly one of the largest—in Europe. The Japanese had had their armed forces equipped and trained by Europeans, mainly Germans, to the finest European standards. European—and American—military and naval observers with the fighting forces sent back expert reports on the operations, which were digested and mulled over by their general staffs. The British, the French, and the German armies all thought it worth their while to produce multi-volume histories of the Russo-Japanese War, and for the next ten years, until interest was eclipsed by events nearer home, its lessons were analyzed in the most precise detail by pundits writing in military periodicals. It was neither the Boer War nor the American Civil War nor even the Franco-Prussian War that European military specialists had in mind when their armies deployed in 1914: it was the fighting in Manchuria of 1904–5.

As usual, the experts tended to read into the experiences of the war very much what they wanted to find. Conservative cavalrymen observed the failure of the Russian cavalry, trained as it was to the use of the rifle, to achieve anything very much either on the battlefield or off it; absence of “the offensive spirit” making both its raids and its reconnaissance remarkably ineffectual. Reformers noted, on the contrary, how effectively the Japanese had deployed their cavalry in the role of mobile firepower, and the important part it had played at the battle of Mukden. Everyone agreed that artillery, with its accuracy, range, and rate of fire, was now of supreme importance; that it must almost always employ indirect fire; that shrapnel rather than high explosive was its most effective projectile; and that the consumption of ammunition would be enormous. Valuable lessons were learned about supply and communication problems and the need for inconspicuous uniforms; every European army quickly reclothed its armies in various shades of brown or grey, and it was political rather than military conservatism that fatally delayed this reform on the part of the French. But most important of all was
the general consensus that infantry assaults with the bayonet, in spite of the South African experience, were still not only possible but necessary. The Japanese had carried them out time and again, and usually with ultimate success.

The Japanese bayonet assaults came, it was true, only at the end of a long and careful advance. They approached whenever possible by night, digging in before dawn, lying up by day, and repeating the process until they could get no further. Then, breaking completely with the European tradition of advancing in extended lines, they dashed forward in small groups of one or two dozen men, each with its own objective, moving rapidly from cover to cover until they were sufficiently close to assault. A French observer described one such scene:

The whole Japanese line is now lit up with the glitter of steel flashing from the scabbard. . . . Once again the officers quit shelter with ringing shouts of “Banzai!” wildly echoed by all the rank and file. Slowly, but not to be denied, they make headway, in spite of the barbed wire, mines and pitfalls, and the merciless hail of bullets. Whole units are destroyed—others take their places; the advancing wave pauses for a moment, but sweeps ever onward. Already they are within a few yards of the trenches. Then, on the Russian side, the long grey line of Siberian Fusiliers forms up in turn, and delivers one last volley before scurrying down the far side of the hill at the double.29

The Japanese losses in these assaults were heavy, but they succeeded; and, so argued the European theorists, such tactics would succeed again. “The Manchurian experience,” as one British military writer put it, “showed over and over again that the bayonet was in no sense an obsolete weapon. . . . The assault is even of more importance than the attainment of fire mastery which antecedes it. It is the supreme moment of the fight. . . . Upon it the final issue depends. . . . From these glorious examples it may be deduced that no duty, however difficult, should be regarded as impossible by well-trained infantry of good morale and discipline.”30

It was this “morale and discipline” of the Japanese armed forces that all observers stressed, and they were equally unanimous in stressing that these qualities characterized not only the armed forces but the entire Japanese nation. General Kuropatkin, the commander of the Russian forces, noted ruefully in his memoirs:

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In the late war . . . our moral strength was less than that of the Japanese; and it was this inferiority, rather than mistakes in generalship, that caused our defeats. . . . The lack of martial spirit, of moral exaltation, and of heroic impulse, affected particularly our stubbornness in battle. In many cases we did not have sufficient resolution to conquer such antagonists as the Japanese.\textsuperscript{31}

The same quality gave a representative of Japan's British ally, General Sir Ian Hamilton, almost equal concern:

It is not so much the idea that we have put our money on the wrong horse that now troubles me. . . . But it should cause European statesmen some anxiety when their people seem to forget that there are millions outside the charmed circle of Western Civilisation who are ready to pluck the sceptre from nerveless hands so soon as the old spirit is allowed to degenerate. . . . Providentially Japan is our ally. . . . England has time, therefore—time to put her military affairs in order; time to implant and cherish the military ideal in the hearts of her children; time to prepare for a disturbed and an anxious twentieth century. . . . From the nursery and its toys to the Sunday school and its cadet company, every influence of affection, loyalty, tradition and education should be brought to bear on the next generation of British boys and girls, so as deeply to impress upon their young minds a feeling of reverence and admiration for the patriotic spirit of their ancestors.\textsuperscript{32}

Such expressions of admiration for the creed of Bushido are to be found widely scattered in the military and militarist literature of the day. Particularly important for our purposes, however, was the general recognition that the Japanese performance had proved, up to the hilt, the moral and military superiority of the offensive. The passive immobility of the Russians, in spite of all the advantages they should have enjoyed from the defense, had in the long run ensured their defeat. It was a conclusion which the military everywhere, after the miasmic doubts engendered by the Boer War, embraced with heartfelt relief. "The defensive is never an acceptable role to the Briton, and he makes little or no study of it," wrote Major General Sir W.G. Knox flatly in 1914.\textsuperscript{33} "It was not by dwelling on the idea of passive defense," wrote the Secretary of State for War R.B. Haldane in 1911, "that our fore-

\textsuperscript{33} Quoted by Travers, "Technology, Tactics, and Morale."
fathers made our country what it is today."\textsuperscript{34} In Germany General von Schlieffen, on retiring as Chief of the General Staff in 1905, held up to his successors the model of the German armies in 1870: "Attacks, and more attacks, ruthless attacks brought it unparalleled losses but also victory and, it is probably true to say, the decision of the campaign."\textsuperscript{35} And his successor, the younger von Moltke, acknowledged the heritage: "We have learned the object that you seek to achieve: not to obtain limited successes but to strike great, destructive blows. . . . Your object is the annihilation of the enemy, and all efforts must be directed towards this end."\textsuperscript{36}

Nowhere was the lesson more gratefully received, however, than in France. Marshal Joffre, whose offensive operations from 1914 through 1916 are now generally considered to have been a succession of unmitigated disasters, described the French reaction to the Russo-Japanese War in his Memoirs with quite unrepentant frankness. After the Boer War, he wrote, a whole series of false doctrines . . . began to undermine even such feeble offensive sentiment as had made its appearance in our war doctrines . . . an incomplete study of the events of a single war had led the intellectual elite of our Army to believe that the improvement in firearms and the power of fire action had so increased the strength of the defensive that an offensive opposed to it had lost all virtue.

After the Russo-Japanese War, however, our young intellectual elite finally shook off the malady of this phraseology which had upset the military world and returned to a more healthy conception of the general conditions prevailing in war.\textsuperscript{37}

Joffre admitted that the new passion for the offensive did take on a "somewhat unreasoning character," citing Colonel de Grandmaison’s famous lectures of 1911 as an example. "Unreasoning" is the right word. One must always, declared de Grandmaison to his audience, succeed in combat in doing things which would be impossible in cold blood. For instance . . . advancing under fire. . . . We must prepare ourselves for

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it, and prepare others by cultivating, passionately, everything which bears the mark of the offensive spirit. To take this to excess would probably still not be far enough.\textsuperscript{38}

There was nothing in this to indicate the careful use of ground and of mutual fire support which had characterized the actual Japanese tactics—tactics in fact remarkably close to those prescribed in the despised French infantry regulation of 1904. But de Grandmaison was not so much setting out a military doctrine as echoing a national mood—a generalized sense of chauvinistic assertiveness which dominated the French "establishment," civil and military alike, in 1911–12.\textsuperscript{39} It was a mood which did much to restore the morale of an army battered and confused after the excesses of the Dreyfus affair, but it could not of itself create the battlefield skills which had also characterized the Japanese army, and without which "the spirit of the offensive" was not so much an assertion of national morale as a generalized death wish. It was in this mood that French officers led the attacks in August–September 1914 which within six weeks produced 385,000 casualties, of which 100,000 were dead.\textsuperscript{40}

Bloch died in 1902, but he could have taken much comfort from the experiences of the Russo–Japanese War. Its battles were prolonged, costly, and indecisive. Victory came through attrition; and defeat, for Russia, brought revolution. But Bloch's critics could equally well argue that his major thesis had been disproved. War had been shown to be neither impossible, nor suicidal. It was still a highly effective instrument of policy for a nation which had the courage to face its dangers and the endurance to bear its costs—especially its inevitable and predictable costs in human lives. Those nations which were not prepared to put their destinies to this test, they urged, could expect no mercy in the grim battle for survival which had always characterized human history and which seemed likely, in the coming century, to be waged with ever greater ferocity. It was in this mood, and with these hopes, that the nations of Europe went to war in 1914.

\textsuperscript{40} Contamine, \textit{La Revanche}, p. 276.