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JOMINI

"In his attempt to explain Napoleon's career, General Jomini made his own contribution to the innovations of the age. He began, not indeed the study of war, but the characteristically modern, systematic study of the subject in the form it has retained ever since.

"With Clausewitz, whom he antedates a bit, Jomini may be said to have done for the study of war something akin to that which Adam Smith did for the study of economics. . . . The work Jomini did was in effect scientific pioneering -- not the first daring penetrations of an unknown country, but the first really good map making."

--Edward Mead Earle, Makers of Modern Strategy

INTRODUCTION

Jomini remains one of history's most influential military theorists. Building on the studies of earlier military students such as the English soldier of fortune Henry Lloyd*, he proclaimed the existence and importance of certain principles of war "which may not be deviated from without danger, and the application of which, by contrast, has almost always been crowned with success." He also systematized the study of the art of waging war, bringing order and clarity into that most disorderly branch of human activity. His books were translated and studied throughout the world; during the American Civil War, generals in both armies relied on them for guidance. For generations, Jomini's claim to be Napoleon's one, true prophet was widely accepted.

Any study of Jomini himself is handicapped by the lack of trustworthy information on many periods of his life. During the Napoleonic wars, he was a very minor figure, seldom mentioned in orders or dispatches, and practically ignored in the memoirs of the officers who served with him. All of his known biographies are based on nothing more than his personal notes or the gaudy stories he wove for various admirers in his extreme old age. Old soldiers -- particularly, disappointed old soldiers -- are apt to touch up the dull facts of history. Jomini was especially energetic in this respect, and had the joy of seeing his finest efforts accepted as the solemn truth by historian after historian. He was, nevertheless, something more than a garrulous veteran; for decades, he produced some of the most influential military studies ever written.

* Major General Henry Lloyd (1725-1783). English soldier of fortune. Served with distinction in the French, Austrian, Prussian and Russian armies. Noted for his studiously impartial History of the Late War in Germany (London: 1776-1790). Though a soldier of the old school, who believed that "battles are the resource of ignorant generals," he probably was the first to work out the modern principles of war.

JOMINI'S LIFE

Antoine Henri Jomini was born during 1779 in the small town of Payerne in western Switzerland of a lower-middle-class family. After a rather indifferent education, he was apprenticed to a banker. Jomini's interests, however, were military, and he read everything he could secure on the wars of Frederick the Great, who remained his life-long hero. In 1796, he secured employment in a Paris bank, left it to become an independent speculator, but in 1798 returned to Switzerland where he had been promised a commission as an aide-de-camp to the new Swiss minister of war. This appointment fell through, but Jomini finally became a civilian secretary in the war ministry. An energetic and orderly worker, he proved highly useful during the reorganization of the Swiss Army, gaining a commission and eventual promotion to the grade of chef de bataillon (major) on the war minister's staff. Unfortunately, Jomini's natural self-confidence and independence made him too often overbearing to subordinates, authoritative with colleagues, and insolent to superiors. In 1802, he disgustedly resigned his commission, and went back to Paris, hoping to enter the French service.

Europe being momentarily at peace, there were no available vacancies. Jomini had to find work with a firm dealing in military supplies, but solaced this enforced civilian interlude by reading the works of such accepted military theorists as Folard, Puysegur, Lloyd, Bulow, Saxe, and Guibert, and by comparing their teachings with the campaigns of Frederick, Bonaparte, and the Archduke Charles. From this study, he turned to writing his first book.

The renewal of hostilities in 1803 increased Jomini's frustration. He could not get his book published, his various intrigues to secure a French commission failed. He approached the Russian ambassador, only to be dismissed as "... a little young to give lessons to Russian generals." Eventually (1804), Jomini secured an interview with Marshal Ney and offered to dedicate his book to him. Ney was generous and kindhearted, a splendid troop leader, but poorly educated. Flattered and impressed, he loaned Jomini the funds necessary to publish his first volume and accepted his services as a volunteer aide-de-camp.

As such, Jomini accompanied Ney through the Ulm campaign and made himself thoroughly useful as an aide, interpreter, and secretary. After Mack's capitulation, Ney's corps was ordered south into the Tyrol, to cover the right flank of Napoleon's advance on Vienna. Jomini's duties as an aide included that of carrying Ney's reports forward to the Imperial Headquarters. He had long been anxious to bring himself to Napoleon's attention; when received by Berthier (according to normal staff procedure) on his first mission, he created a scene over being denied immediate access to the Emperor himself. Brusquely disciplined and dismissed, Jomini thereafter adopted Berthier as his malevolent personal enemy, blamed him for all his

troubles, and devoted considerable energy to blackening his reputation. Berthier seems to have concluded -- then or later -- that Jomini was a noisy, nosey, non-regulation nuisance.

Shortly after Austerlitz, Jomini again carried Ney's dispatches, along with which he enclosed copies of the first two volumes of his work, now entitled Traité des Grandes Opérations Militaires (Treatise on Major Military Operations). Later, when he had a moment's leisure, Napoleon had portions of these books read to him, and was both surprised and impressed. He ordered Jomini given a commission in the French Army as an adjudant commandant (a staff grade, equivalent to colonel).

During the interlude between the campaigns of 1805 and 1806, Jomini finished the third volume of his Traité. He also drew up a staff study for Ney, predicting war with Russia and generally forecasting the strategy Napoleon would employ during the coming Jena campaign. (He also had the poor taste to attempt to bring his writings to the attention of the Prussian -- and possibly the Russian -- governments.) In late September, Jomini was summoned to Napoleon's headquarters at Mayence. This was one of the high points of Jomini's life; as he later described it, Napoleon -- completing a conference with Augereau and Kellermann -- abruptly called him aside.

"Who are you?"

"Sire, I am Colonel Jomini."

"Oh yes, I remember. It was you who sent me that very important book. I am delighted that the first book to demonstrate the true rules of war should appear during my reign. No one taught us anything like that in our military schools.

"We shall have to fight the Prussians. I have summoned you because you have written concerning the campaigns of Frederick the Great, you know [everything concerning] his army, and you have studied the theater of war thoroughly. You should be able to provide me with useful information. I believe that we shall have a harder time than [we did] against the Austrians; we shall really have to scratch gravel."

"Sire, I do not agree; since the war of 1763, they have made only the unsuccessful campaigns of 1792-1794; they lack combat experience."

"Yes, but they have the traditions and the experienced generals from the times of the great king [Frederick]. Well, we shall see."

Napoleon then informed Jomini that he would be attached to the Imperial Headquarters for the coming campaign. Jomini requested permission to return to Ney's corps to turn over his duties as senior aide-de-camp and to pick up his horses and equipment.

"If your Majesty will allow me four days, I shall be able to rejoin you at Bamberg."

At the mention of Bamberg (so Jomini recalled), Napoleon turned pale. Half-astonished, half-angry, the Emperor demanded "-- And what makes you think I am going to Bamberg?"

"The map of Germany, sire."

"What do you mean, 'the map'? There are a hundred other roads on that map besides the one to Bamberg."

"Yes, sire, but it is probable that your Majesty intends to employ the same maneuver against the left of the Prussians that you used via Donauworth against Mack's right, and by way of the St. Bernard Pass against Melas' right flank; and this cannot be done except by [an advance] through Bamberg toward Gera."

"Very well," the dazzled Napoleon is supposed to have replied, "be at Bamberg in four days; but do not say a word about this, not even to Berthier, no one must know that I am going to Bamberg."

The authenticity of this story -- typical of the anecdotes which Jomini told many years afterwards -- has been questioned, but it undoubtedly is partially true. Jomini had predicted some such strategy in his recent memorial to Ney. What he never learned, of course, was that Berthier had been working on plans for an advance through Bamberg for three weeks before Jomini reached Mayence.

Jomini accordingly accompanied the imperial headquarters through the Jena campaign. After the occupation of Berlin, he was directed to draw up some notes on Silesia, as a guide to General Vandamme, who was to occupy that still unconquered Prussian province. Jomini expanded these notes into a long memorandum, urging Napoleon to conciliate Prussia instead of punishing her, and to further strengthen her as a possible ally against Russia. Though the Poles were eagerly awaiting French liberation, Jomini believed them unfitted for independence, and so advised Napoleon against aiding them. This unsolicited paper went into Napoleon's wastebasket; Jomini's next appearance before Napoleon produced a tart rebuke.

Nevertheless, Jomini remained with the imperial headquarters during the Polish campaign. At Eylau, he is supposed to have blurted out a wish to be in Bennigsen's place "for only two hours," thereby straining his popularity with the imperial staff. Years afterwards, Jomini would tell how Napoleon had been so hard-pressed at Eylau that he had planned to retreat, if the Russians did not withdraw first. In strict secrecy -- this story went -- Napoleon confided his plans to Jomini alone: Grouchy was to command the rear guard, but supervision of the entire operation would be entrusted to Adjutant-Commandant Jomini. Naturally, this memory remains magnificently unproven.

After Eylau, Jomini went on sick leave, and so missed the Friedland campaign. Thereafter, he took action to obtain a definite assignment in the French Army. Ney wanted him as his VI Corps chief of staff, but Berthier -- undoubtedly considering him lacking in experience -- assigned him to the subordinate position of assistant chief of staff. Instead of accepting this decision as an opportunity to learn the details of staff work, Jomini angrily created a teapot tempest. He wrote directly to Napoleon, threatening to resign if he were not given what he considered his just dues.

Napoleon seldom wasted talent. Jomini already had been awarded the Legion of Honor in 1807 (apparently for services rendered in 1805). Now, Napoleon directed that he be made Ney's chief of staff; in July 1808, he made Jomini a Baron of the Empire. Jomini had continued work on his Traité during the lull which followed the treaties of Tilsit. There is some indication that his work as chief of staff may have played second fiddle to his writing.

Meanwhile, Napoleon's initial attempt to occupy Spain had failed. Ney's VI Corps was one of the veteran units summoned to retrieve this defeat. Jomini and Ney soon found themselves increasingly at odds. Jomini claimed that jealous members of his staff poisoned Ney's mind with suggestions that Jomini regarded himself as the marshal's brains. Other sources suggest that Jomini did give himself such airs. Moreover, the Spanish campaign was rough and disappointing; the VI Corps did not perform with its usual efficiency, and Jomini was shaken by the savagery of the growing guerrilla warfare. Eventually (1809), Ney relieved him, leaving him "at the disposition of the Minister of War."

Napoleon then considered assigning Jomini to Davout's corps in northern Germany, but finally turned him over to Berthier, who in turn assigned him to one of the sections of the imperial staff. Considering this a form of degradation, Jomini made an effort to obtain command of one of the brigades of Swiss troops which were serving with the French Army. To improve his chances, he offered to dedicate a new edition of the Traité to Berthier (which, by contemporary custom, meant that its introduction would flatter and glorify him). Berthier accepted the dedication, but refused all praise. As for the brigade, too many competent French and Swiss veterans had better claims.

Furious over this new rebuff, Jomini entered into negotiations with a Russian agent in Paris, seeking a new career in the Russian Army. These negotiations proved strangely complicated; French military intelligence learned of them; and Jomini got a reprimand from the French minister of war. However, after Jomini had rendered an apology, Napoleon pardoned him, promoted him to the grade of general of brigade, gave him financial support for his current publications, and put him to work writing the history of the 1796 Italian campaign. Such work should have been to Jomini's taste, but he was soon complaining of the drudgery involved and the lack of cooperation from the officer in charge of the war ministry's files. (He also received -- and "held in reserve" -- a Russian commission as a brigadier general.)

In early 1812, Jomini was reassigned to the imperial headquarters, with the title of "Official Historian of the Grande Armee." Shortly after the invasion of Russia began, however, he was detailed on his own request as military governor of Vilna, the first important city occupied by the French. This was a difficult assignment, and Jomini did not distinguish himself. Moreover, he became engaged in a petty feud with his immediate superior, General Hogendorp, the governor-general of Lithuania. Tiring of this unnecessary bickering, Napoleon transferred Jomini to Smolensk. His service here remains obscure. When the retreating Grande Armee reached Smolensk, Jomini was sent ahead of it to Orsha, apparently to collect supplies and detachments, and report on the state of the roads. (From this routine assignment grew the later legend that he "guided" the army to Orsha and selected the Studienka crossing site.) During the crossing of the Berezina, he fell ill; he finally reached safety at Stettin after a series of hairsbreadth escapes and great hardships, but was unable to serve again until May 1813.

When Jomini finally rejoined the French army in Germany, just after the battle of Lutzen, Napoleon reassigned him to Ney, whose corps chief of staff had been killed. Ney now commanded the French left wing -- practically an army in itself, consisting of his own corps and those of Victor, Reynier, Lauriston, and Sebastiani. Unfortunately, this force was too large for Ney's military talents, which consisted in large part of downright personal leadership. And Jomini, whatever his theoretical knowledge, lacked the practical experience which might have enabled him to supplement Ney's efforts. In late May, Ney was called in to envelop the right flank of the combined Russian/Prussian armies, which Napoleon had fixed in a strong defensive position at Bautzen. A poorly managed series of marches brought his command into action piecemeal; Ney's subsequent tactics were erratic; and the Allied armies escaped. Shortly thereafter, an armistice brought a short pause in the campaign.

Among the many awards which Ney requested for the troops under his command was a recommendation that Jomini be promoted to general of division. But Jomini's elation over this expected fortune was rudely interrupted. He had failed to submit several unit status reports on time and in the correct form. Napoleon considered such reports vital to his operational and logistical planning. (Also, he may have blamed Jomini for the recent poor showing of Ney's command.) As punishment, Jomini was placed under arrest for a short period; his promotion was refused. At the same time his usual lack of tact involved him in a violent argument with Ney.

Convinced that he had no future in the French service, Jomini deserted to the enemy on 15 August, the last day of the armistice. It appears that he did not (as was widely believed at the time) reveal Napoleon's plans for the coming campaign, possibly because he did not know them. He himself claimed to have refused to give his new employers any information about the French Army; Bernadotte (who, as the Crown Prince of Sweden, had joined the Allies against Napoleon) stated that he did.

Accepted as a member of Tsar Alexander's personal staff, Jomini hoped to become the guiding genius of the Allied armies. His new comrades, however, neither liked him nor trusted him. He was full of advice, much of it excellent, but seldom designed for execution by an uneasy, four-power alliance, which had to adjust its internal political relationships with as much care as it planned its campaigns. During the 1814 invasion of France, he kept urging an immediate advance on Paris, though in later years he saw fit to say little of this.

After a brief, and very unsuccessful, attempt (1814) to find a place in the new Swiss government, Jomini returned to his duties as a Russian general. In Paris with the Allied armies of occupation after Waterloo, he gave Madame Ney some cautious help in her vain attempts to save Marshal Ney from execution. Thereafter, he served sporadically in Russia. He was briefly the military tutor of the future Tsars, Nicholas I and Alexander II; saw some staff duty in the Turkish (1828) and Crimean (1854-1856) campaigns; and organized the first Russian military academy. His personality, however, still involved him in constant bickerings, and most of his later years were spent in Paris on extended leave, supposedly because of his poor health. Here he lived his life, fighting endless literary duels with his various critics, disparaging Clausewitz's works, dazzling visitors with wonderful stories about the Napoleonic wars, and producing the books which have ensured his enduring fame. His steady glorification of Napoleon gradually led Frenchmen to overlook his conduct in 1813. He died, famous at last in 1869.

As a practical soldier, Jomini's career was uninspiring. He never commanded so much as a company, even in peacetime. In fact, he never particularly sought command duty, considering it unnecessary in the education of a general. As a staff officer, he seems to have done well as a free-lance aide-de-camp in 1805, but definitely failed as a corps chief of staff in 1809 and 1813. These failures may have been due in large part to his peculiar personality: vain, arrogant, and suspicious, he was generally disliked. He was incapable of cheerfully accepting a subordinate position, a rebuke, or an unpleasant assignment for the good of the service -- or even to gain the necessary foundation of training, experience, and good will for his own career. Consequently, he was never able to find a military assignment which matched his talents -- or at least his own opinion of them. Napoleon gave him every opportunity to prove himself; but, even as an official historian, Jomini was more productive of complaints than of books.

Yet, despite his unimpressive record, he developed a deep understanding of the military art and -- possibly more important -- the ability to write down his ideas in plain, coherent language. Basically, he was more of an observer and a critic than a soldier. (He once defined himself as an "investigator.") "... lost on the heights of pure strategy; freeing his chessboard of all worldly concerns, he ended by seeing further than the army commanders. ... He did not care whether

the flag he followed be victorious, whether the war hazarded the fate of two nations ... but whether the maneuver was expert."* This detachment made him an impartial writer when his own ego was not involved.

Of Jomini's historical works, his fifteen-volume Critical and Military History of the Wars of the Revolution (published 1815-1824) had some reputation, but is now seldom used. His most famous historical work (1827), the Political and Military Life of Napoleon, covered Napoleon's life through 1814; twelve years later, Jomini added a volume on the campaign of 1815. Its scheme is peculiar -- following his death, Napoleon arrives in the Elysian Fields where the shades of Alexander, Caesar, and Frederick question him as to his career. This work had a great popularity; it contained vast amounts of information and was relatively easy to read. Throughout it (except for the 1815 sequel) Napoleon tells his story in the first person, giving it a remarkably authoritative air. However, it is not accurate history. We are told that the character speaking is Napoleon, but the voice and words are Jomini's. His desire to defame his personal enemies (notably Berthier), to claim credit for himself, and to glorify Napoleon and Tsar Alexander, make it frequently inaccurate. Also, the work is flawed by errors of fact, which a reasonable degree of research should have detected. Yet, at the same time, Jomini's critiques of Napoleon's various campaigns are often quite sound. The book still is a handy reference, but must be used with care.

Jomini's first work, his Traité des Grandes Operations Militaires (Treatise on Major Military Operations) (originally published 1804-1816; several times revised) is basically a critical history of Frederick the Great's campaigns during the Seven Years War (1756-1763). In it, Jomini compared Frederick's operations with those of Napoleon, and from this comparison produced a summation of "the general principles of the art of war." The one fundamental principle, Jomini maintained, was to be superior at the decisive point. To accomplish this, a commander might: (1) "... take the initiative ..."; (2) "... direct our movements against whatever weak part [of the enemy position] ... will procure us the most advantageous results."; (3) "... hold our forces concentrated ..."; (4) "... induce the enemy ... to scatter out his masses ..."; (5) "... perfectly inform ourselves of the positions of the enemy and of the movements which he can make."; (6) "... combine our attack in such a way as to cause all our forces to become engaged at the same time with the single exception of the reserve ..."; (7) "... follow up a beaten army closely ..."; and (8) "... care for the morale of our army." Jomini stressed that the enemy's flanks, rear, and communications are rewarding objectives; the enemy's center should be attacked only when his forces are overextended.

A large part of this famous work -- including Jomini's fundamental principle -- was lifted unblushingly from Lloyd's History of the Late War in Germany. The best that can be said for such conduct is that

* Courville, page 4.

Jomini at least could recognize a good subject for plagiarism when he saw it. His own contribution, beyond his comparisons of Frederick's and Napoleon's methods, was his attempt to define various aspects of the art of war. He developed Lloyd's concept of the line of operations; pointed out Frederick's successful use of interior lines, as compared to the exterior lines on which his opponents were forced to operate; and defined concentric and eccentric movements. (These were the portions of the Traité which impressed Napoleon in 1805.)

In 1838, Jomini published his major work, A Summary of the Art of War (Precis de l'Art de la Guerre), in which he considered the art of war as a whole, summing up the results of his years of experience, reading, and debate. This book had an immense success and was translated into practically every European language. It considered the various purposes of war; military policy; strategy; grand tactics and battles; special operations (river crossings, retreats, pursuits, and amphibious operations); logistics (in which Jomini included marches, reconnaissance, and staff work in general); and operations of combined arms. In this work, Jomini further developed his system of definitions. "His Precis probably did more than any single book to fix the great subdivisions of modern military science for good and all and to give them common currency."* Military men throughout the world accepted it as a handy compendium of what every soldier should know. One of the later military theorists influenced by Jomini's writings was Alfred Thayer Mahan, the noted American naval authority and author.

In it, Jomini reiterates his basic idea, repeatedly stating that there is but one principle underlying all the operations of war, namely, to throw the mass of one's forces upon the decisive point. In explanation of how to apply this principle to gain success in war, he states that the successive stages should be:

1. "By strategic movements to throw the mass of an army successively upon the decisive points of a theater of war, and upon the communications of the enemy to the fullest extent possible without endangering one's own communications.
2. "To maneuver to engage fractions of the hostile army with the bulk of one's own forces.
3. "On the battlefield, to throw the mass of our forces upon the decisive point, namely, that portion of the hostile line which it is most important to overthrow.
4. "To maneuver one's masses, not only to throw them upon the decisive point, but also to engage them there with energy and concert in a coordinated effort."

* Earle. Makers of Modern Strategy, p. 89.

Jomini admits at the beginning that the usefulness of such maxims boils down to the difficulty of recognizing the decisive points, and of applying the basic principle under the stress of battle. He therefore devotes much of his book to explaining how to solve these problems and become skillful in applying the principle in the field under campaign conditions. Throughout, he insists that the principles of war themselves are simple, common-sense, and easy to understand, but that the difficult part of war is their application, requiring much study, even genius, to master. Every principle and maxim stated is discussed and analyzed in detail and its application made clear by historical examples.

The following characteristic quotations will illustrate the comprehensive nature of the book:

"The theory of the great combinations of war is in itself very simple, and requires nothing more than ordinary intelligence and careful consideration. Notwithstanding its simplicity, many learned military men have difficulty in grasping it thoroughly. Their minds wander off to accessory details, in place of fixing themselves on first causes."

* * *

"Two very different things must exist in a man to make him a [great] general: he must know how to arrange a good plan of operations, and then be able to carry it to a successful termination. The first of these talents may be a natural gift, but it may also be acquired and developed by study. The second depends more on individual character, is rather a personal attribute, and cannot be created by study, although it may be improved."

* * *

"Strategy is the art of maneuvering armies in the theater of operations; tactics the art of disposing them upon the battlefield."

* * *

"This employment should be regulated by two fundamental principles. The first is to obtain by free and rapid movements the advantage of bringing the mass of troops against fractions of the enemy; the second is to strike in the most decisive direction -- that is to say, in that direction where the consequences of the tactical defeat of the enemy may be most disastrous to him strategically, while at the same time any tactical success the enemy might gain would yield him the least possible strategic advantage . . . The whole science of great military combinations is comprised in these two fundamental truths. . ."

* * *

"The application of these fundamental principles is also very simple. If you have one hundred battalions against an equal number of the enemy's, you may utilize the sound strategical principles I have outlined, such as the initiative, surprise, interior lines, or envelopment of one extremity of the hostile line, to enable you to bring ... to your principal attack, at the decisive point where the important contest is to take place, ... eighty of your battalions against fifty of the enemy's, while employing the remaining twenty to contain the other half of the enemy."

* * *

"One of the first principles of strategy is first to seize the enemy's communications and then turn upon his army."

* * *

"It is almost always easy to determine the decisive point of a field of battle, but not so easy to determine the decisive moment; and it is precisely here that genius and experience are everything, and mere theory of little value."

* * *

"A good staff is indispensable ... it has the advantage of being more lasting than the genius of a single man; it can remedy many evils ... it will tend to prevent mistakes by furnishing the commander with reliable information ..."

* * *

"The principal advantage of the defensive lies in the fact that it is able to select its own theater of war. But it cannot draw all possible advantages from the situation by a simple passive defense ... For ... decisive results ... it is necessary to adopt an active defense ..."

* * *

"If a few prejudiced men, after reading this book and carefully studying the detailed and correct history of the great masters of the art of war, still contend that it has neither principles nor rules, I can only pity them and reply, in the famous words of Frederick, that 'a mule which has made twenty campaigns under Prince Eugene* would not be a better tactician than [he was] at the beginning.'"

* * *

* Prince Eugene of Savoy, famous Austrian general (1663-1736), and comrade-in-arms of the Duke of Marlborough.

"Correct theories, founded upon proper principles, sustained by actual events in wars, and added to accurate military history, will form a true school of instruction for generals. If these means do not produce great men, they will at least produce generals of sufficient skill to take rank next after the natural masters of the art of war . . ."

Unlike Clausewitz, Jomini had little interest in the nature of war itself, preferring instead to seek out the principles and rules which would enable a commander to wage it successfully. Accordingly, he was sometimes charged with attempting to reduce the art of war to a matter of maxims and geometrical diagrams. Jomini felt such accusations deeply -- possibly because he realized an element of truth in them. He was naturally a man of few enthusiasms. He had the intelligence to comprehend Napoleon's strategy, but he completely lacked -- and only dimly understood -- the furious qualities of personal leadership which enabled Napoleon, Davout, Ney, and many others to repeatedly snatch victory out of disaster. Half-acknowledging this, his later writings emphasized that "... war is a great drama, in which a thousand physical or moral causes operate more or less powerfully, and which cannot be reduced to mathematical calculations. . . . war is not an exact science, but a drama full of passion. . . . The first of all the requisites for a man's success as a leader is, that he be perfectly brave."

In the end, Jomini's enduring virtue is that of clarifying and systematizing the study of the art of war. He was probably the first to definitely differentiate between the basic principles of strategy and the multitudinous technical details with which earlier writers (including Lloyd) had encumbered their books. His logical, tidy principles have become the basic foundation of military study. Whatever his personal weaknesses and failings, he has influenced the study of the military art more than all of Napoleon's marshals together, and remains the educator of generations of generals.

Probably the best summation of Jomini was the sentence penned by Napoleon on 16 August 1813, immediately after Jomini's desertion: "He is not worth much as a soldier; however, as a writer, he has gotten hold of some sound ideas on war."

BIBLIOGRAPHY

- Lecomte, Ferdinand. Le general Jomini, sa vie, et ses ecrits. Lausanne: Benda, 1861.
- Sainte-Beuve, Charles A. Le General Jomini. Paris: Michel Levy, 1869.
- Courville, Xavier de. Jomine, ou le devin de Napoleon. Paris: Librairie Plan, 1935.
- Earle, Edward M. (editor). Makers of Modern Strategy. Princeton: Princeton University Press, 1943.
- Fabry, Gabriel J. Campagne de Russie, 1812 (5 volumes). Paris: Lucian Gougy, 1900-1912.
- McClellan, George B. Article in The Galaxy (an American magazine), June 1869.

Other authors, such as Dodge and Hittle, have written appreciations on Jomini, based mainly on Lecomte's book.

CLAUSEWITZ

"But it was my wish also in this to avoid everything common, everything that is self-evident, that has been said a hundred times, and is commonly accepted; for my ambition was to write a book that would not be forgotten in two or three years, and which anyone interested in the subject would be sure to read more than once."

--Clausewitz

Born near Magdeburg, Prussia, on 1 June 1780, Karl von Clausewitz grew up in a life of genteel poverty. His family had immigrated from Poland into Prussia about the beginning of the century; his father had served as a lieutenant in a garrison regiment under Frederick the Great, and later had been given a minor governmental position as a tax collector. There being only one honorable career possible for such a boy, he entered the Prussian Army in 1792, as a "fahnenjunker" (officer candidate), serving against the French revolutionary armies through 1793-94, and winning his commission during the siege of Mayence. This active service was followed by seven years of garrison duty, during which Clausewitz worked to correct his defective education -- his family having been too poor to give him a proper one. His industry must have been noted and approved, for in 1801 he was accepted as a student at the Berlin Kriegsschule (War Academy). Here, he proved an outstanding student, and soon attracted the attention of Gerhard von Scharnhorst, the self-made Hanoverian staff officer whom the Prussian government recently had employed as the school's superintendent. In 1803, on Scharnhorst's recommendation, Prince August of Prussia took Clausewitz as his personal "adjutant" (aide-de-camp). Accordingly, Clausewitz was able to observe the reaction of the higher levels of the Prussian command to Napoleon's Ulm-Austerlitz campaign, and their fumbling military and diplomatic efforts to prepare Prussia for war. Like many other Prussian officers, he welcomed the approach of war with France, for only through a successful war could he win distinction and promotion -- and pay enough to marry the young countess to whom he was engaged. His hopes, however, soon were shaken by the chaotic condition of the Prussian headquarters with its endless councils of war, where every general had a plan, but none heeded Scharnhorst's warning that the situation required prompt action, rather than the elaboration of a perfect plan.

Clausewitz experienced the results of this indecision at Auerstadt, where Davout's outnumbered corps outmaneuvered and outfought the proud Prussian Army, beating down its long-famous massed cavalry charges, infantry volleys, and heavy cannon. Thereafter, he was part of Hohenlohe's disintegrating command, struggling northward until intercepted by Murat at Prenzlau. Reportedly, he showed considerable bravery and determination as a combat officer; he certainly improved his existence as a prisoner of war by carefully analyzing the causes of the Prussian debacle.

On Clausewitz' release in 1807, Scharnhorst secured him a commission as a major in the Prussian general staff. He accumulated a multitude of important responsibilities, becoming (1809) head of one section in the ministry of war where he was a valued assistant to Scharnhorst, who now functioned as both minister of war and chief of staff. The next year, he also became an instructor at the Kriegsschule, and was appointed military instructor to Crown Prince Frederick William. Clausewitz' exact duties during this period still are under study, but it now appears that he had a significant part in the reorganization of the Prussian Army.

Scharnhorst was the military leader of a group of "reformers" (often termed the "Jacobins"), who sought to convert Prussia from a semi-feudal state into a modern nation. This group included statesmen such as Stein and Hardenberg, and soldiers like Gneisenau and even Blucher. None of these men were "old" Prussians; most of them were foreigners with their careers to make; all of them saw, more or less clearly, that the French Revolution had loosed new forces into the world and that Prussia must adapt herself to them or decline into a French vassal state. In France, all careers were open to any individual who had the necessary intelligence and determination; Napoleon could draw upon the brains, bodies, and enthusiasm of the whole French people. The "reformers" sought to likewise revitalize Prussia, but by imposing a "revolution from above," through reforms accomplished in their King's name. Their immediate objective was the establishment of an effective military system, including a national army, supported by universal conscription and officered by the best men available, regardless of class. Naturally, their efforts were opposed by most of the nobility, distrusted by King Frederick William, and frequently squashed by Napoleon, who kept a cold eye on all Prussian military reorganization.

By 1810, Clausewitz' fortunes had improved enough for him to marry his Countess Marie von Bruhl, a match which proved happy and enduring. But when Napoleon demanded that Prussia provide him an auxiliary army for his 1812 campaign against Russia, Clausewitz was one of a number of Prussian officers who resigned their commissions to enter the Russian service. (This action undoubtedly was in keeping with his personal convictions, but also may have been planned by Scharnhorst's inner clique as a means of keeping a foot in both camps. Further research is needed.)

In Russia, Clausewitz' relative youth and low rank (he received a Russian commission as lieutenant colonel) -- as well as his ignorance of the Russian language -- restricted him to various headquarters assignments. If he had any effect on Russian planning and strategy, no trace has been found of it. He was with Barclay's army throughout Napoleon's advance on Moscow, being present at all the major battles. During the French retreat, he was transferred to Wittgenstein's staff, and served as the Russian agent in detaching Yorck's Prussian contingent from Macdonald's corps (the so-called "Convention of Tauroggen," whereby Yorck deserted the French, and held his troops "neutral" until Prussia officially joined the Allies). Even before Prussia did so, Clausewitz was active in organizing militia units in Russian-occupied East Prussia, and otherwise energetically preparing for war with France. During 1813-1814 he remained in the Russian Army, distinguishing himself at Bautzen and thereafter serving as chief of staff to Walmoden's polyglot Allied army in north Germany. Here, he received credit for that undistinguished commander's one tactical success (Gohrde; 1813). After the Allied victory in 1814 he was welcomed back to Prussia and promoted to the grade of colonel; in 1815 he was chief of staff to Thielmann's corps during the Waterloo campaign.

Napoleon no longer being present to stimulate reform, Prussia -- like the rest of Europe -- thereafter rapidly sank back into reactionary apathy. The "Prussian Jacobins" were rewarded -- and elbowed aside. (The Austrian, English, and Russian governments alike disapproved of their ambitions, which combined foreign conquest with greater domestic democracy.) After three years of duty with troops on the Rhine frontier, Clausewitz was promoted to general (1818), and made the director of the Berlin War Academy. His duties here, however, were purely administrative; his influence on the curriculum and even the student body could be only slight, and indirect. However, this assignment gave him the leisure for "scientific labours" which he had long wanted. He turned his wife's drawing room into a study and began working through the notes which he had accumulated during his service. This congenial work was interrupted in August 1830, when he was made chief of the second artillery district, with headquarters at Breslau. Then came another change of orders. Poland (theoretically an independent kingdom under the personal rule of the Czar of Russia) had broken out in furious rebellion, and Prussia's Polish-inhabited eastern provinces were on the verge of joining in. A Prussian army was hastily organized there under Gneisenau, who appointed Clausewitz his chief of staff. Meanwhile, a cholera epidemic had broken out in that disturbed area. Gneisenau died first, at Posen; Clausewitz succumbed on 16 November 1831 after his return to Breslau.

Clausewitz' usual reputation is that of an intellectual theorist, with limited practical experience, who had only slight influence upon his own period. As a matter of fact, he had seen active service in 1806, and had a responsible part -- generally as a corps chief of staff -- in the campaigns of 1812, 1813, 1814, and 1815. He was an instructor and director of the Prussian War Academy, which at that time was the most advanced military school in Europe. He filled a responsible position in the Prussian ministry of war, was Scharnhorst's trusted assistant, raised and organized troops in 1813, and acted as military tutor to two Prussian princes. Consequently, his service was unusually well-rounded, and far more thorough and varied than Jomini's. If he exhibited no outstanding brilliance, his general reputation was that of a brave, honorable, and competent soldier, and a thoughtful student of the art of war. Without family rank or fortune to aid him, he rose steadily (and comparatively rapidly) in the Prussian service; had he lived longer he undoubtedly would have enjoyed further promotion.

His character combined two conflicting tendencies: Inwardly (as his wife expressed it) "... he felt a desire to be really useful, and not to leave inactive the abilities with which God had endowed him." Outwardly, he was shy, extremely reserved, highly sensitive to all rebuffs, and not inclined to disputation. Such a man naturally would experience considerable discontent and disappointment, even while pursuing a successful military career. His letters frequently have a bitter tone, and he openly longed for promotions, decorations, and -- particularly -- authority to put his own ideas into execution in his own name. He was

interested in theology and Kant's¹ philosophy, both of which exert definite influences on his writing. Always the patriotic Prussian, his mature writings have little of the excessive national pride which marked his earlier, historical works. Even in 1815, he could criticize Blucher's actions following the Allied occupation of Paris. (For example, in the name of revenge, Blucher proposed blowing up the Jena Bridge, which Napoleon had built across the Seine to commemorate that victory. Blucher was thwarted by the combination of a British sentry and the incompetence of his own engineers, but his display of petty malice hurt Prussian prestige.)

Clausewitz was both a thorough professional soldier and a thoughtful military philosopher. He was in no sense a war-monger. The interweaving of military policy, national policy, national economy, and national spirit fascinated him. Out of his varied experience, he developed a consuming desire to understand the true nature -- or natures -- of war.

Clausewitz wrote, so he said, "... to iron out many creases in the heads of strategists and statesmen ... and at least to show the real point to be considered in War."

Clausewitz' first known treatise on the art of war appeared in 1804; in it he stressed the importance of morale and psychological factors in warfare, as compared to the eighteenth-century doctrine of "scientific warfare" with its stress upon maneuver, "subsistence," and "commanding positions." He revised this work at least once (1805), and later produced his scathing Notes on Prussia in Its Great Catastrophe of 1806, which was suppressed for some time by the Prussian government. (This last is Clausewitz' only work, other than On War, known to have been translated into English.) Clausewitz also wrote brief histories of Bonaparte's 1796-1797 Italian campaign; of the 1799 campaigns in Italy and Switzerland; of the campaigns of 1812, 1813, 1814, and 1815; and of campaigns of various seventeenth and eighteenth century commanders such as Gustavus Adolphus, Turenne, and Frederick the Great. Most of these were gradually translated into French. They generally are brief and relatively sound; if Clausewitz sometimes fails to be impartial, he at least usually remembers that he should try. His criticisms of the Prussian Army in 1806 sometimes overlook the fact that it could not maneuver and fight as effectively as the Prussian Army of 1813-1814, and that it was far more dependent on a secure line of communications.

Oddly enough, Clausewitz' writings never have been completely collected and published. On War, his most famous work, still was incomplete when he died. From 1816 on, he had jotted down a series of random notes, many of which he later expanded into short essays. Being naturally inclined to "development and systematizing," he then began reworking these into a connected whole, but felt them to be "a mass which is still in a way without form, and which has yet again to be

¹ Immanuel Kant (1724-1804), German philosopher; author of Critique of Pure Reason.

revised." After his death, his wife and brother-in-law assembled these papers into the best order they could for publication. The incomplete character of this work has tempted its various editors and translators to sprinkle it with comments and modifications, some of which Clausewitz probably would disown. Clausewitz' own style of writing tended to be formal and philosophical; frequently it appears to have suffered in translation into English, the translators having lacked either a sufficient mastery of the German language, or of the German military terminology of Clausewitz' era, or both. The fact that -- with all these disadvantages -- On War has managed to exert so much influence on military thought over so many years is sufficient indication of its probable impact had Clausewitz lived to complete it. But, because it remains incomplete, it requires careful study. It is no safe reference for the casual reader.

Clausewitz recognized certain definite principles of war, which he considered simple common sense. He did not, however, attempt to develop any "system" for waging war, feeling that war was too complex to be reduced to a neat system of rules and diagrams. Instead, he studied the whole problem of war from a basically philosophical viewpoint.

"Clausewitz is above all a philosopher of the Art of War, but it is exactly that fact which gives a general and permanent value to everything which, in his works, is independent of the operations of his epoch and develops from pure logic, as is the case with the Chinese Sun Tzu."²

Clausewitz' military philosophy had two ill-matched parents--his early environment, training, and service had indoctrinated him -- however much he sometimes struggled against it -- in the eighteenth-century belief that war was a natural and deliberate thing, employed whenever necessary to extend Prussia's territories and prestige, and waged by professional armies with very little moral fuss over which side might be the aggressor. His later service had been in the Napoleonic wars, with their swift, far-ranging campaigns, which were fought by whole nations-in-arms, and shattered Kingdoms in half the time Frederick the Great had required to occupy a minor province. Clausewitz never quite succeeded in reconciling the lessons of these two halves of his mental heritage. He probably evolved nothing actually new, but he did succeed in putting into fairly clear language the brutal facts of international relations as they have existed from time immemorial.

Clausewitz recognized two kinds of war: "first, those in which the object is the overthrow of the enemy [general war], either to destroy him as a national entity, or merely to disarm him and force him to accept peace on our terms; and next, those in which our object is merely to seize some territory on the frontier of his country, either for the purpose of retaining it permanently, or of using it for bargaining

² Wanty, Emile. La Pensee Militaire des Origines a 1914, p. 377.

purposes during peace negotiations [limited war]. Transition from one kind to the other certainly will occur. . . ."

War he defined as "... an act of violence intended to compel our opponent to obey our will." However, he pointed out that war was not an independent thing in itself, but "only a part of political intercourse" between nations -- "... a continuation of political relations, intermixed with new means" -- "... a more energetic way of expressing political thought, in a language which, if it does not have its own logic, at least possesses a grammar all its own." "Politics, in lieu of writing notes, fights battles."

Since war is a particular means of carrying out national policy, military strategy must be designed to further the national policy, "... For political aims are the end and war is the means, and the means can never be conceived without the end." The nation's leaders must determine the objectives of any contemplated war, and the policies which they propose to employ in waging it. They must be especially careful in determining whether the objectives they select are actually within the capabilities of their military forces. These decisions made, they should leave purely military considerations to their military commander, who should thereafter have a voice in any subsequent decisions. Indeed, Clausewitz pointed out that the political objective "... must be adapted to the nature of the means and consequently may often be totally changed ..." as the circumstances under which the war is waged may change (for example, because of unexpected losses, unforeseen logistic problems, or the entrance of a third belligerent). "Strategy in general and the commander in chief in particular may demand that the political tendencies and aims shall not conflict with the nature of available military means, and this demand is by no means a slight one." However, the military commander's presentation of the military viewpoint should suffice; other military men should be excluded from such deliberations "... it is rare that their intervention is not detrimental. . ." Obviously, Jena-Auerstadt had taught Clausewitz the value of the principle of Unity of Command.

Finally, war takes the characteristics of the national policy which launched it. "The more skillful and powerful the [policy], the more energetic the [war] becomes. There is no limit to this, and war may reach its absolute form." If one nation is determined on the destruction of another -- as in the recent Chinese conquest of Tibet -- hostilities may very well include a deliberate program of genocide, designed to abolish the conquered as a separate people.

Since war is an act of violence, the battle is its decisive act. "The decision by arms is for all operations in War, great and small, what cash settlement is in trade." A cautious commander may very properly attempt to avoid battle until his forces are stronger, or the enemy becomes unwary, but he must always keep in mind that "... he only travels on side roads, where the God of War may surprise him." -- "Every activity in War, therefore necessarily relates either directly or indirectly to combat. The soldier is levied, clothed, armed, drilled,

he sleeps, eats, drinks, and marches, all merely to fight at the right time and place." (Naturally, a greatly superior army may not have to fight battles; the threat of its attack may suffice.)

Battles are fought only for one purpose: the destruction of the enemy's military force, which Clausewitz considered "more a killing of the enemy's courage than of the enemy's soldiers." He realized that the test of battle was a severe one -- "blood is always its price, and slaughter its character." Consequently, "Statesmen and Generals have in all ages endeavored to avoid the decisive battle, seeking either to obtain their aim without it, or secretly abandoning that aim." Such an attitude may prevail for a time, but it means disaster when a determined adversary appears. "Let us not hear of Generals who conquer without bloodshed. If bloody slaughter is a horrible sight, then that is a reason for regarding war more seriously, but not for making the sword we wear blunter and blunter by degrees from feelings of humanity, until some one steps in with one that is sharp and lops off the arm from our body." Furthermore, "It is necessary to either wage war with the utmost energy, or not at all."

Clausewitz' principles of war (in addition to that of Unity of Command, mentioned earlier) include the following:

a. The Objective: The most essential thing is the "direction it is necessary to give the war" (the over-all national strategy). Likewise, the actual fighting must be directed at the destruction of the enemy's combat power. Clausewitz considered that every possible enemy should be studied to determine its "center of strength," the capture or destruction of which would make its defeat certain. In some nations, this was the capital city; in others, the armed forces. In a coalition of hostile powers, this "center" was usually the strongest of those powers. Such a "center" always was the most decisive objective possible, and so must be given priority.

b. Mass: Numerical superiority was important, but not indispensable. The "...first principle of strategy..." is that "...the greatest possible number of troops should be brought into action at the decisive point."

c. Economy of Force: "Whoever has forces where the enemy does not give them sufficient employment, whoever has part of his forces on the march ... while the enemy's are fighting, is a bad manager of his forces."

d. Surprise: "Surprise ... is also to be regarded as an independent principle in itself, on account of its moral effect."

e. Mobility: (Now a British principle of war.) "Secrecy and rapidity are the two elements of this product... ."

f. Simplicity: All "combined operations" risk being upset by the enemy's reaction. He may launch a simpler attack, requiring less time to prepare, and so gain the initiative.

As regards actual military operations, Clausewitz was unexpectedly cautious and conservative. To him, the defensive was a "stronger" form of warfare than the offensive: "To preserve is easier than to acquire." A passive defense, however, would be negative; the defensive-offensive, properly handled, is the ideal method -- "a swift and vigorous assumption of the offensive, the flashing sword of vengeance, is the most brilliant factor in the defensive. Victory, under all conditions, must be followed by immediate and unsparing pursuit."

The offensive, he felt, "contained the seeds of its own destruction." The attacking army would soon be weakened by "strategic consumption"--the lengthening of its communications, the growing difficulties of supply, the necessity of making numerous detachments to secure its rear and cover its flanks, and constant losses from minor actions and disease. Thus continually weakened, the attacker sooner or later would become vulnerable to a counteroffensive. "Beyond the culminating point the scale turns ... and the violence of the recoil is commonly much greater than was that of the forward push." He can hope for success only if, despite the effects of strategic consumption, his forces remained stronger than the defender's. (In that case, of course, the attacker should make every effort to win the war at one blow, without delay, exploiting the essential characteristics of offensive warfare -- decision, speed, and continuity of effort.) Clausewitz also insisted that "war must be considered as a whole," and that minor victories had no value except as they contributed to the main effort. While this conception is eminently correct when applied to world-wide strategic problems, Clausewitz carried it too far in its tactical application, insisting that "serious advance guard actions which precede a battle are to be looked on only as necessary evils, and when not necessary they are to be avoided." (Here, Clausewitz seems to have missed an important factor in Napoleon's success at Jena and elsewhere -- the aggressive use of a strong advance guard, which found and fixed the enemy, forming a pivot for Napoleon's subsequent attack.)

Having seen considerable guerrilla warfare during 1812-1814, Clausewitz considered a "people's war" highly effective, if carried out in conjunction with the operations of a regular army. (He excepted Russia, where the vast expanses of the country would favor such operations.) His ideas were thoroughly "modern." Irregular forces "should not be employed against the main body of the enemy's Army, or even against any considerable detachment of the same, they must not attempt to crack the nut, they must only gnaw on the surface and the edges." They should begin their organization in areas on the flanks of the enemy's offensive ("Where no enemy is to be found, there is no want of courage to oppose him..."). Encouraged by successes won over small enemy security detachments, they will gradually extend their operations until this people's war "seizes his lines of communication and attacks the vital thread by which his existence is supported."

Their action "should, like a kind of nebulous, vapory essence, never condense into a solid body; otherwise, the enemy ... crushes it ... Still ... it is necessary that this mist should collect at

some points into denser masses, and form threatening clouds from which now and again a formidable flash of lightning may burst forth. . . . These better organized masses are for the purpose of falling upon the larger garrisons which the enemy leaves behind him. Besides, they serve to create a feeling of uneasiness and dread, and increase the moral impression of the whole. "

Small cadres of regular troops are invaluable to encourage and give direction to the irregulars, but too many regulars on such duty attract the enemy, and are difficult for the inhabitants to support. Guerrillas cannot stand heavy losses or prolonged strain, and so must rely on hit-and-run tactics.

Probably Clausewitz' most unusual contribution was his emphasis on the effect of the moral forces in war. This includes his very practical conception of "friction in war," to explain why military theory often proved so difficult to put into practice. Strategic problems may be very simple, but they still will not be easy to solve.

"As long as we have no personal knowledge of war, we cannot conceive where those difficulties lie and what the genius and extraordinary powers required in a general really have to accomplish. Everything appears so simple, all the requisite branches of knowledge appear so plain, all the combinations so unimportant, that, in comparison with them, the easiest problem in higher mathematics impresses us with a certain scientific dignity."

"Everything is simple in war but the simplest thing is difficult. These difficulties accumulate and produce a friction which no man who has not seen war can really imagine."

"Friction is the only conception which, in a general way, corresponds to that which distinguishes a real war from one on paper. The military machine, the army and all belonging to it, is in fact simple; and appears on that account easy to manage. But let us reflect that no part of it is in one piece, that it is composed entirely of individuals, each of which keeps up his own friction in all directions. Theoretically all sounds very well; the commander of a battalion is responsible for the execution of the order given; and as the battalion by its discipline is glued together in one piece and the commander must be a man of acknowledged zeal, the beam turns on an iron pin with little friction. But it is not so in reality, and all that is exaggerated and false in such a conception manifests itself at once in war. "

"Activity in war is a movement in a resistant medium. Just as a man in water is unable to perform with ease and regularity the most simple and natural movement, that of walking, so in war, with ordinary powers, one cannot achieve even mediocre results. "

"...the Commander ... finds himself in a constant whirlpool of false and true information, of mistakes committed through fear, through negligence, through haste; of disregard of his authority, either from mistaken or correct motives, from ill will, true or false sense of duty; of indolence or exhaustion, of accidents, which no mortal could have foreseen. In short, he is the victim of a hundred thousand impressions, most of which are intimidating, few of which are encouraging. By long experience in War, one acquires the sensitive perception [necessary] for quickly determining the [true] value of these incidents; high courage and stability of character stand proof against them, as the rock resists the beating of the waves ... Further, there is hardly any celebrated enterprise in War which was not achieved by endless exertions, pains, and privations; ... only an immense force of will ... can conduct us to our goal."

Therefore, a commander requires a cool intelligence, strength of character, and audacity, as well as technical competence.

"The calculation of time and space, although it is always the foundation of strategy, is neither its most difficult nor most decisive element The correct judgement of their opponents, the audacity to leave only a small force before them . . . , energy in forced marches, boldness in sudden attacks, the intensified activity which great souls acquire in the moment of danger, these are . . . [what wins] victories... Boldness, directed by an overruling intelligence, is the mark of the hero. . ."

Clausewitz distrusted any over-all theory as to how wars were to be fought, feeling that it was impossible to develop one that would cover all cases. More important, theories of warfare concentrated upon the material forces -- disregarding the fact that "the whole military action is permeated by moral forces" -- and "they consider only the activity of one side, while war is a constant state of reciprocal action," in which your plans always may be upset by the enemy's reaction. His conviction was that the commander must act "according to the situation" and not according to any particular theory. An officer could use theory in the study of the art of war "to guide him in his self-instruction." In this, the officer should remember that war is "like a chameleon." Each war has its own special character; it reflects the political-economic conditions of its time; and in order to draw worthwhile lessons from it, the student must understand the conditions under which it was fought. Superficial criticism is easy, but valueless. Real critical study of any campaign involves thorough historical research to determine what actually happened; thereafter, the causes of the various results must be determined to learn why. With these factors determined, theories may be developed to explain the over-all action, and praise or censure awarded. "What [a] genius does must be the best of all rules, and theory cannot do better than to show how or why. . . ." The student must have a sense of proportion: very minor military operations (such as the "cannonade of Valmy" in 1792, when the French Revolutionary forces turned back the Allied drive on Paris) may have more influence on history than great and bloody battles.

One good example of Clausewitz's historical criticism is his review of Napoleon's 1814 campaign in France. The situation on 9-10 February is shown on the map following page . Napoleon, with approximately 70,000 men, was attempting to block the advance of two Allied armies: Schwarzenberg (150,000) and Blucher (57,000). Seeking a quick victory, the over-confident Blucher had allowed his forces to become over-extended.

Taking prompt advantage of his central position, Napoleon left Oudinot and Victor (39,000) to contain Schwarzenberg, and moved with 31,000 men to strike Blucher, ordering Macdonald to countermarch eastward. On 10 February, he destroyed Olssufieu's weak corps at Champaubert. Blucher retired on Vertus, and recalled Sacken (who was attempting to trap Macdonald) to Montmirail. Napoleon reached Montmirail first, defeating both Sacken and Yorck who had marched to Sacken's assistance. These two Prussian corps then retired northward through Chateau-Thierry. Macdonald, however, moved too slowly to interfere with their withdrawal.

Meanwhile, Blucher (15,000) had renewed his advance toward Montmirail. Napoleon turned on him, driving him back in disorder through Etoges. He originally intended to follow up this success, but was checked by news that Schwarzenberg had forced the Seine and advanced as far as Mormant. Napoleon thereupon turned south, reinforced Oudinot and Victor near Guignes on 16 February, and defeated Schwarzenberg's columns in a series of battles between Mormant and Montereau, forcing him to retire on Etoges. (These operations are covered in detail in A Military History and Atlas of the Napoleonic Wars, texts and maps 146-149.)

Commenting on these operations, Clausewitz wrote:

"When Bonaparte, in February, 1814, after gaining the battles of Etoges, Champ-Aubert, and Montmirail, left Blucher's army and, turning upon Schwarzenberg, beat his corps at Montereau and Mormant, everyone was filled with admiration, because Bonaparte, by thus throwing his concentrated force first upon one opponent, then upon another, made a brilliant use of the mistakes which his adversaries had committed in dividing their forces. If these brilliant strokes in different directions failed to save him, it was generally considered to be no fault of his, at least. No one has yet asked the question, 'What would have been the result if, instead of turning from Blucher on Schwarzenberg, he had tried another blow at Blucher and pursued him to the Rhine?' We are convinced that it would have completely changed the course of the campaign and that the Allied army, instead of marching to Paris, would have retired behind the Rhine. We do not ask others to share our conviction, but one who understands the thing will not doubt, at the mere mention of this alternative course, that it is one which should not be overlooked in criticism."

"... We should support the arguments on the following simple truths: (a) In general it is more advantageous to continue our blows in one and the same direction, because there is a loss of time in striking in different directions; and at the point where the moral power is already shaken by considerable losses, there is the more reason to expect fresh successes; therefore, in that way, no part of the preponderance already gained is left idle. (b) Because Blucher, although weaker than Schwarzenberg, was, on account of his enterprising spirit, the more important adversary; in him, therefore, lay the center of attraction which drew the others along in the same direction. (c) Because the losses which Blucher had sustained almost amounted to a defeat, which gave Bonaparte such a preponderance over him as to make his retreat to the Rhine almost certain, and at the same time no reserves of any consequence awaited him there. (d) Because there was no other result which would be so terrific in its aspects, would appear to the imagination in such gigantic proportions; an immense advantage in dealing with a staff so weak and irresolute as that of Schwarzenberg notoriously was at that time."

One interesting feature of Clausewitz's life was his relationship to his contemporary, Jomini. Both men were devoted admirers of Frederick the Great, and both had been caught up in the fury of the Napoleonic Wars. It is not certain that the two men ever met; at any rate, they disagreed in print for years. Clausewitz seems to have read Jomini's Traite des Grandes Operations Militaires shortly after its first publication in 1804. He considered it good, but felt that Jomini had not sufficiently distinguished the incidental from the essential. The outlook of the two men was quite different: Jomini sought to erect a theoretical system for winning battles; Clausewitz was concerned with the basic nature of war. Jomini gave major emphasis to the offensive; Clausewitz, to the defensive-offensive. Jomini was the self-centered, insistent, intellectual mercenary; Clausewitz the self-disciplined, competent Prussian staff officer. Jomini was fascinated by the military art, but had no interest in plain, hard soldiering; Clausewitz had been a professional soldier since he was twelve. It would be surprising if they had agreed. Their works on various campaigns became weapons, aimed at one another's theses and heads. Clausewitz never mentioned Jomini by name; Jomini mentioned Clausewitz only to term him "excessive and arrogant," and accuse him of plagiarism. Following the publication of On War after Clausewitz's death, Jomini crossly termed it a "labyrinth", later he expressed regret that Clausewitz had not lived to read his Precis de l'Art de la Guerre, expressing the belief that this might have converted Clausewitz to Jomini's point of view. (Clausewitz probably would have called the Precis a "guidebook.")

Clausewitz's influence has been widespread and deep. Unfortunately, it has not been the type of influence he hoped to exert. Clausewitz, the practical believer in the strength of the defensive, the man who urged a greater democracy for Prussia's citizens, the thoughtful soldier-statesman who thought that war was a serious and hazardous business -- that

Clausewitz now has been denounced for a half-century as an exponent of "Prussianism", a fanatical believer in mass warfare, and a champion of the offensive, regardless of the losses incurred.

In part, this can be blamed on the unfinished condition in which On War was published. Clausewitz had not been able to work out all of the contradictions it contained, or to more than "rough in" many of his ideas. Part of it can be blamed on his style, which was difficult to read (one Frenchman defined it as a "metaphysical storm"). Also, Clausewitz liked striking statements -- "War is an act of violence pushed to its utmost bounds" -- "Blood is the price of victory," -- and "The bloody solution of the crisis, the effort for the destruction of the enemy's forces, is the first-born son of war." Since understanding him required effort, many of his so-called students seem merely to have skimmed along from one forceful expression to the next.

The Germans, while echoing Schlieffen's praise of Clausewitz -- "His doctrine of war is in depth and form the most perfect that has ever been enunciated." -- preceded to prepare for, and wage, offensive wars. Some, like Ludendorff, went so far as to decide that war was not only "an instrument of policy", but the principal instrument. The French decided that "Clausewitz's doctrine is sufficiently flexible, so that it is easy to interpret, to expand, and even to correct....". They were especially fascinated with his emphasis on the moral factors in war and on the importance of the commander's force of character. Foch deduced from this that "a battle won is a battle in which one will not confess oneself beaten." This concept -- which, intelligently applied, possesses a certain logic -- was next over-inflated by one of Foch's students, Colonel de Grandmaison (who helped to develop the initial French plans for World War I) into the concept that will power was somehow superior to fire power.

World War I produced a revulsion against things military. English writers like Liddell Hart spoke of the "mausoleums of mud built by Clausewitz and his successors"; J. F. C. Fuller blamed him for teaching that the decisive objective was "the body of the hostile army", and not the "will of the hostile nation." Both were willing to admit that Clausewitz might have been misinterpreted, but obviously neither of them understood him perfectly either. Meanwhile, Clausewitz had been adopted by international communism, which read deeper than any western soldier had bothered to do. Clausewitz's observations on the interplay of statecraft and war fascinated the communist leaders; Lenin especially appreciated the remark, "A conqueror is always a lover of peace; he would like to make his entry into our country unopposed." Russian communists passed Clausewitz's teachings to their Chinese allies, who blended them with the sometimes similar doctrines of their own military sages, such as Sun Tzu.

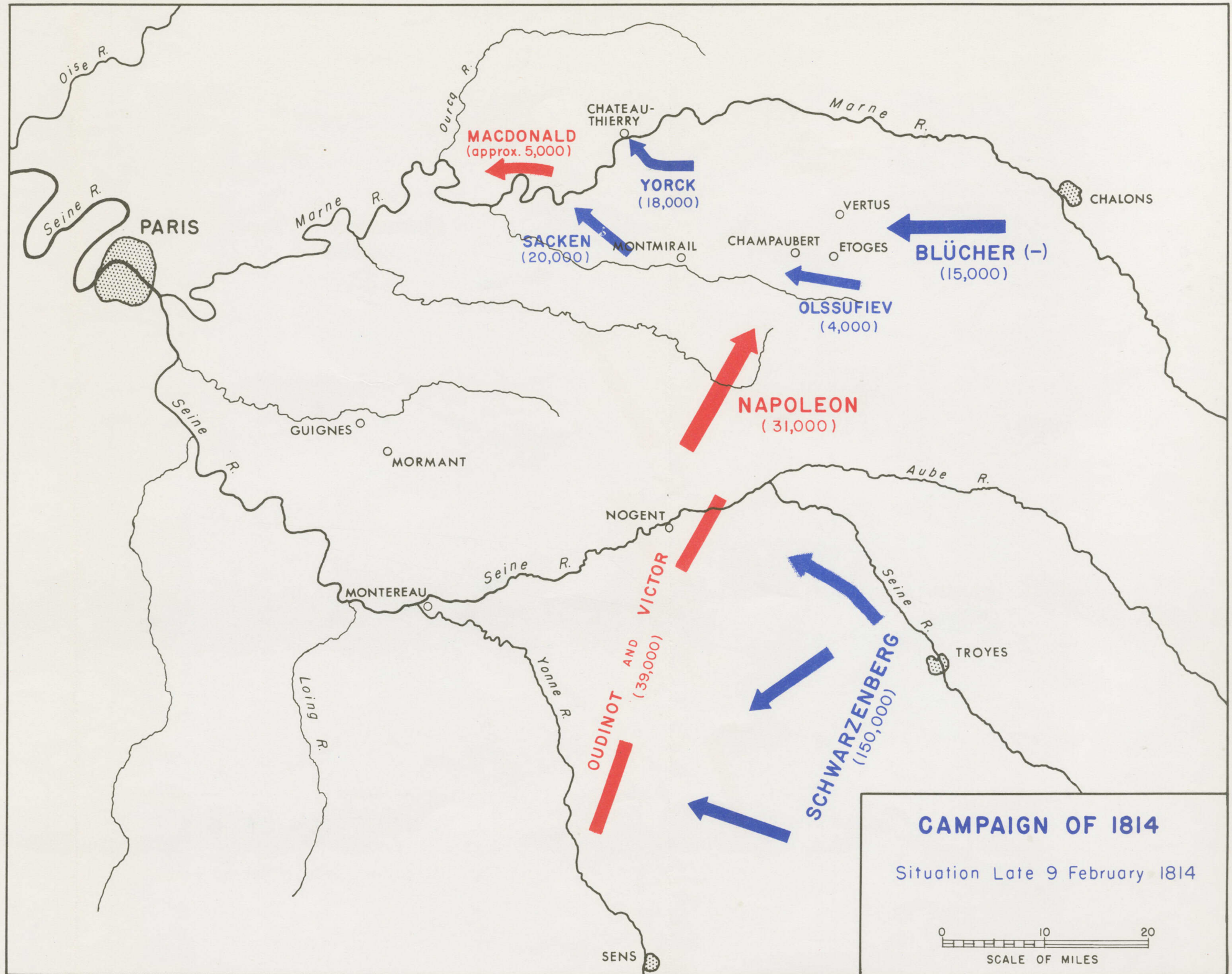
But Clausewitz's greatest importance is that he understood the facts of international life, including war's part in it. In 1909, Major Stewart L. Murray of the British Army, wrote:

"Clausewitz wrote his book expressly for statesmen as well as soldiers. We may be sure, therefore, that the influence of Clausewitz on the Continent has penetrated the realm of policy little less than the realm of war. From this thought arise many reflections. It will be sufficient here to suggest one. I would suggest that we should regard every foreign statesman, especially in Germany, as consciously or unconsciously a disciple of Clausewitz, that is to say, we should regard him as a man who, underneath everything else, underneath the most pacific assurances for the present, considers war an unalterable part of the policy. He will regard war as part of the ordinary intercourse of nations, and occasional warlike struggles as inevitable as commercial struggles. He will consider war also as an instrument of policy, which he himself may have to use, and to be studied accordingly. He will consider it not as a thing merely for speeches, but for practical use in furthering or defending the interests of his State. He will regard war as the means by which some day his nation shall impose its will upon another nation. He will be prepared to wait, to make 'every imaginable preparation,' and finally to let loose war in its most absolute and ruthless character, war carried on with the utmost means, the utmost energy, and the utmost effort of a whole nation-in-arms, determined to achieve its political object and compel submission to its will by force."

"To talk to such a man of 'the evils of war' or of 'the burden of armaments'; or to propose to him 'disarmament' or 'reduction of armed forces,' and so forth, can only appear to him as the result of 'imperfect knowledge.' He will not say so but he will think so, and act accordingly. To the partially instructed opponent of such a man one can only say, 'Let him that thinketh he standeth take heed lest he fall'."

Major Murray proved an accurate prophet. And today Clausewitz's teachings have spread world-wide. There are new types of wars, hardly guessed by Clausewitz -- economic wars, psychological wars, wars by massive, organized subversion -- always with the possibility of general war looming behind them.

Said Clausewitz, "Now the first, the greatest, and the most decisive act of judgement which a statesman and a commander performs is that of correctly recognizing in this respect the kind of a war he is undertaking, of not assuming it to be, or wishing to make it, something which by the nature of the circumstances it cannot be."



SCHLIEFFEN

THE BATTLE OF ANNIHILATION

Until recent years, the Battle of Cannae was a comparatively unknown battle. Fought in 216 B. C. between Hannibal and a Roman consul, Terentius Varro, it resulted in the disastrous defeat of the latter. Today Cannae has become a military term signifying the "battle of annihilation," the defensive-offensive maneuver, whereby the enemy is surrounded and exterminated. This conception has been brought about by the writings and teachings of Count von Schlieffen, former Chief of Staff of the German Army (1891-1906). Schlieffen and his strategic theories were little known outside of Germany before World War I; however, his name has since become familiar to all interested in military matters. He is known as the one who originally conceived the great wheel through Belgium. It was he who preached for years to the German Army the doctrine of the wide envelopment, the quick decision on the Western Front, the defensive-offensive combination as conceived and laid down in his plan of 1905.

At the conclusion of the campaign of 1870, Moltke, then Chief of Staff of the Prussian Army, stated that what they had won in so short a period must be defended with the sword for the next 50 years. Moltke, during the remainder of his term as Chief of Staff, expended all his energies toward building a German Army equal to this task. Von Moltke, who was also Chief of Staff during the campaign of 1866, was succeeded by von Waldersee, who, in turn, was succeeded in 1891 by von Schlieffen. Schlieffen, a disciple of the elder Moltke, held this office for 14 years, until his retirement in 1906. With energy and single-minded intensity, he devoted himself to the cause of his country's military welfare. During the period of his incumbency, in addition to carrying out the policies of his great mentor, Moltke, von Schlieffen introduced many innovations of his own.

In organization, by careful peacetime training of reservists he prepared to use reserve divisions as first-line troops. This policy, if fully carried out, would have doubled the number of divisions available for field duty in case of war. Though only partially carried out by the younger von Moltke, it produced over one third more divisions in 1914 than France had anticipated.

In armament, he initiated the development of heavy artillery (siege artillery) which would be sufficiently mobile to accompany field armies in open-warfare maneuver and combat. The world was astounded in 1914 at the heavy artillery moved by the Germans into Belgium and used to reduce the fortifications of Liége.

In strategy, he created no new system of his own, but, as noted above, preached the idea of the battle of annihilation. His whole military thought and his entire attitude toward war were dominated by this idea, which became his lifelong obsession.

Schlieffen's strategic conception grew out of the peculiar geographic location of his country. Germany was surrounded on all sides by powerful neighbors. Few were friendly, some were probable allies, most were potential enemies. Schlieffen's problem, therefore, was so to guide the military effort of Germany that a victory would result against this powerful cordon of enemies. His solution was, by operating on interior lines, to crush the enemies successively and decisively. The first blow would be struck in the West. He knew that it must be quick, decisive, annihilating. How was this to be accomplished? Not by time-exhausting frontal attacks, doubtful in their results. He turned to history for his solution, an envelopment of one or both flanks, a complete encirclement of the enemy with annihilating results. The decision must be quick and sure.

To indoctrinate the army in the idea of the battle of annihilation, Schlieffen wrote a monograph called *Cannae*, in which he took the now-famous battle as the base upon which to found his theme. He then discussed various battles of Frederick and Napoleon to emphasize the results possible of attainment by movement as opposed to mass action. From Frederick's campaigns he took the Battles of Leuthen, Zorndorf, Torgau and Kunersdorf. In his discussion of Napoleon he forcibly brought out that as a general he courted maneuver, but as an emperor espoused mass. To prove the former contention he naturally discussed, among others, Napoleon's classic turning movements—Marengo, Ulm, Jena—and his defensive-offensive maneuver at Austerlitz. He used Leipzig and Waterloo to illustrate Napoleon's reversion to mass tactics.

From Frederick and Napoleon, Schlieffen moved forward to the campaign of 1866 to illustrate Moltke's fine strategic conceptions and his struggle to overcome the tendency of the Army toward mass attacks. Finally, he culminated his discourse with a detailed and critical discussion of the campaign of 1870, which ended in the "Cannae" of Sedan.

All through his career he held the Battle of Cannae high before the eyes of the German strategists as a classic example of the inevitable general assault. We have studied Cannae and know that it was not initially conceived by Hannibal as an offensive battle. Hannibal was outnumbered two to one. Not only did he not assume the offensive initially, but on the contrary he surrendered the initiative. Varro, falling into the trap, moved his masses against Hannibal's center. Hannibal now assumed the offensive, making a double envelopment with his best troops, while his cavalry attacked Varro in rear. Thus he elected to receive the onslaught of the Romans with a view to a delayed offensive or counterstroke. The results were decisive, annihilating. In the words of Livy, "There was killing until nightfall."

There is no need at this time to recount the battles of Frederick and Napoleon, with which all are familiar. That space will be taken in introducing certain essential details of the campaigns of 1866 and 1870, which should be a part of the equipment of every student of military history, and which were used by Schlieffen in developing his theme, *Cannae*.

THE CAMPAIGN IN BOHEMIA, 1866

Before the move into Bohemia, the Prussians had defeated the forces of Hanover and had occupied Hesse. Prior to the concentration of the Army of the Elbe at Dresden a Saxon corps had moved into Bohemia to cooperate with the Austrians. The opening moves that led up to the Battle of Königgrätz will be touched on only briefly. Schlieffen discussed Königgrätz as a battle of lost opportunity, although Moltke exerted all his influence to bring about a wide envelopment of the Austrian forces, which would have resulted in a decisive defeat.

As the campaign opened, the Prussian armies were concentrated as shown (Map 1). The Army of the Elbe (VIII Corps plus 1 division) had 46,000 men; the First Army (II, III, IV Corps and a cavalry corps), 93,000; and the Second Army (I, V, VI and Gd. Corps) 115,000; a total of 254,000. The Austrians, 250,000, were in Moravia with advance elements near Königgrätz and Gitschin. The Saxons, 24,000, were near Gitschin.

Moltke had concentrated his armies in the three localities shown in order to avail himself of all possible roads for the advance into Bohemia. He thus gave up a concentration of his three armies prior to battle, and planned to concentrate on the battlefield. With the Austrians in Moravia, and his armies as shown, Moltke believed that there would be a meeting engagement on the Elbe east of Gitschin. His plan called for the Army of the Elbe and the First Army to engage the enemy frontally while the Second Army took him in flank and rear; a true concentration on the field of battle and a very difficult maneuver, owing to the difficulty of timing the advances of the several armies. Napoleon tried this at Jena, and it will be recalled that the result was two distinct battles, Jena and Auerstadt. The narrative will disclose that the tendency of the army commanders to move shoulder to shoulder, to advance in mass formations, resulted in a frontal attack at Königgrätz which, although decisive, did not annihilate the Austrians.

The Prussian advance was initiated as planned. The movement of the First Army was slowed down to allow the Army of the Elbe to come abreast of it. The Second Army was met at the border by two Austrian corps which, while partially successful in a number of minor engagements, were forced back, although reinforced, when the pressure of the Second Army was brought to bear. The Saxons and the Austrian I Corps had been falling back before the Army of the Elbe and the First Army. Finally, the Saxon group retired precipitously upon Sadowa, causing, on the 30th of June, the retirement of all the Austrian forces into the Königgrätz area. The Austrian commander (Benedek) was not badly defeated, but in his own mind his forces were in a bad condition. As a result of lack of morale and leadership, the Austrian forces falling back on Königgrätz were sadly demoralized. Benedek, on 30 June, wired the Austrian Emperor, "I urgently implore Your Majesty to conclude a peace at any price; a catastrophe to the army is inevitable."

Map 2 gives the dispositions of the opposing forces on 2 July and outlines Moltke's plan for the Battle of Königgrätz. It will be noted that his desire was for two corps of the Second Army to move to the east, or left, bank of the Elbe to cut off any retreat to the east, while the remainder of the Second Army was to attack the north flank. The First Army was to engage the enemy frontally while the Army of the Elbe enveloped the south flank. The cavalry corps was to move to the east of Königgrätz to intercept any movement to the southeast. A nicely conceived plan! The Prussians armies had been assembled on the field of battle, and an annihilating battle could have resulted if this plan had been followed.

KÖNIGGRÄTZ

Situation Early 3 July (Map 3).—The Austrians occupied a defensive position east of the Bistritz River. The center of the line was very strong and heavily reinforced with artillery. The position, although strong defensively, was reminiscent of Bennigsen at Friedland, with his back to the river. If defeated and intercepted at the river, the results would surely be disastrous. Benedek should have taken a position behind the obstacle of the Elbe, where he could reorganize his demoralized troops. However, on 2 July he had regained some of his poise, for he wired the Emperor on that date: "The army will remain in its position at Königgrätz; the day's rest and the abundant food have had a good effect. I hope no further retreat will be necessary."

A study of the Prussian situation will disclose that the dispositions early 3 July were far from those desired by Moltke. Schlieffen did not criticize Moltke for lack of control, but put all the blame on the inherent desire of the army commanders to move shoulder to shoulder. Other critics have not been so kind and believe that the High Command should have seen that its desires were followed.

The Second Army had objected to moving any of its corps east of the Elbe because of the danger of defeat in detail. Thus that army was committed to a frontal attack with the major part of its force, while any possibility of maneuver to the east was blocked by the Elbe. The First Army was in position to attack frontally as planned. The Army of the Elbe had not gone as wide as originally intended. As to the cavalry, it was following in rear and could never be used to advantage in the action of the day. At that time the idea was to use the cavalry on the field of battle and not for reconnaissance, security, or for interception. "The masses of cavalry were taken along with the trains as articles de luxe."

Situation Afternoon 3 July (Map 4).—During the action of this day the Austrians put up a stubborn resistance. The preponderance of their artillery and the inherent defensive strength of their center held the First Army in check. As the action progressed, the Second Army threatened the right flank and caused it to withdraw. The Army of the Elbe did not swing wide but attacked frontally, with two of its three divisions, the position held by the Saxons and the VIII Corps. Benedek was occupied during the early afternoon with the action of the center, and it was not until 1500 that he considered using the two corps in reserve for a counterattack. He then ordered one brigade of the I Corps to assist the Saxons and advanced the VI Corps to sustain the center.

These efforts were to no avail, as the pressure was becoming too great and the north flank was retiring. It was not until late in the afternoon that an envelopment by a small force caused the retirement of the south flank. At this time Benedek called a council of war to determine the best course of action. The question was put as to what Napoleon would do in a case like this. Schlieffen says that the question was superfluous, as Napoleon would never have placed himself in such a position. It was too late now. The pressure of the Second Army and the retirement of the Saxons forced the withdrawal of the center, and the entire Austrian force fell back on the fortress of Königgrätz. The Prussians failed, late in the afternoon, to push their advantage. The Austrians, as they drew close to the fortress, were followed by the three German armies moving shoulder to shoulder, and evidently making no effort to encircle the beaten foe.

At this point there occurred an incident that showed the importance of each commander appreciating the over-all strategy involved and being prepared to do his part in its execution. The retreating troops naturally expected to cross the Elbe River under the protection of the guns of Königgrätz, but the commander there, thinking that his own force's occupancy of the fortified city assured the safety of Austria from the Prussians, flooded the moats and closed the gates against all comers, friend and foe alike. Thus, instead of being able to form a strong new defense behind the river line, based on the fortress, the Austrians were thrown into great confusion. Two corps managed to cross above the city, while the Saxon and VIII Corps crossed below. Finally, at 2300, the fortress commander was ordered by Vienna to open the gates to the remainder of Benedek's army. However, in spite of all the difficulties the bulk of the Austrians were east of the river by morning.

That evening the Prussian armies bivouacked on the field of battle, about four miles from Königgrätz. No effort was made to apply pressure to the retreating enemy, nor were plans made for a pursuit on the next day. The desire of the army commanders had been realized. The three armies were assembled in one compact mass on a narrow front facing Königgrätz. They might now advance in a close formation, but the enemy was fleeing to the south. Evidently, it was not clear to Prussian headquarters, even on the 4th of July, that a major victory had been gained. No effort to pursue being made on the 4th, the Austrians retired unmolested.

Thus ended the Battle of Königgrätz, which to the mind of Schlieffen was an action of lost opportunities. There were on the

battlefield about 240,000 Prussians and 200,000 Austrians. The Prussians lost 9,000, while the Austrians and Saxons lost 44,000, of whom 20,000 were prisoners.

THE FRANCO-PRUSSIAN WAR, 1870

The Franco-Prussian War well illustrates the wide turning movement as taught by von Schlieffen. For this reason, and because it was fought during his own time, Schlieffen gave considerable space to the story of this campaign. The account given here is more in detail than is required to portray the tactical doctrine of annihilation, but is given because certain events of the campaign should be known by the student of military history. In the study of this campaign, certain resemblances to the campaign of the Marne will be noted: the ill-advised French offensive as the opening move; the defeat of the French in the frontier battles; and a large-scale turning movement by the Germans to obtain an annihilating decision. The comparison must be dropped when the results are recounted, for in 1870 the French never recovered from the frontier engagements and were practically annihilated, while in 1914 they did recover from the initial shock and, at the Marne, prevented a decisive defeat.

Topography.—The Franco-German frontier from Luxembourg to Switzerland was about 220 miles in length. The Vosges Mountains form a barrier between Alsace and Lorraine, with principal crossings near Bitsche and at Saverne, each traversed by a highway and a railroad. The country between the Saar and the Moselle is generally open and rolling. A glance at **Map 5** will show how the selection of the concentration areas of the German armies was dictated by the railroad net, placing the Third Army to the south of the Vosges Mountains. Thus the first major objective of the German advance was to clear the Vosges and concentrate the armies in the plain east of the Moselle, where they would be mutually supporting.

The French War Plan.—The existence of a formal war plan for the employment of the French forces is a matter of considerable controversy. However, it is known that there was a general plan which called for an offensive, based on the theory that the assumption of the initiative was required to neutralize the admitted superiority of the enemy. It called for a thrust which would separate the north and south German confederations, with a hope that the enemy could be defeated in detail. It was also thought that a show of force on the part of France might induce Austria and Italy to take

up arms against Germany. It should be born in mind, as we proceed, that the plan was very nebulous and was not based on careful and detailed studies, or on the rate at which the French Army could be mobilized and concentrated.

The German Plan.—The main features of the German plan were as follows:

1. To concentrate in the Bavarian Palatinate.
2. To advance initially into Alsace-Lorraine, where it was believed that the French would concentrate.
3. To attack the enemy wherever found. Detailed plans of attack would have to be prepared after information of the French dispositions became available.
4. To drive the French forces to the northwest, against Belgium, cutting them off from Paris.
5. Finally, to capture Paris.

An important point to note is that the Germans concentrated well behind the frontier so as to prevent interference by the French with their initial concentration. This served the further purpose of providing some marching, as a training measure, before contact with the enemy.

French Concentration.—The French mobilization was initiated on 16 July. The concentration of the corps in their respective areas proceeded simultaneously. The concentration was much slower than had been anticipated. The map shows the locations of the French corps at the end of July. At this time the II Corps was near the frontier as a strategic advance guard. The V Corps, much spread out and not entirely concentrated, was to maintain communication between the two wings. The VII Corps was left at Belfort to prevent any movement from the south. It will be noted that the Vosges Mountains would divide the two wings of the French army until an advance cleared this obstacle. The estimated strength of the seven corps was 270,000 men and 925 guns.

The French strategic plan depended for success upon mobilization and concentration before the enemy could mobilize and concentrate. No complete and carefully tested plan of mobilization had been adopted prior to the commencement of hostilities. As a result there was attempted a concentration on the frontier before mobilization was entirely complete.

German Concentration.—The German mobilization and concentration proceeded according to their well-laid plans. By 1 August all corps, with the exception of the I, II, and VI, were in their concen-

tration areas, while those latter corps were concentrated by 5 August. The total German strength was about 460,000 infantry, 55,000 cavalry, and 1500 guns.

The assignment of corps to the armies was as follows:

<i>First Army</i>	<i>Second Army</i>	<i>Third Army</i>
I	II	V
VII	III	VI
VIII	IV	XI
	IX	I Bav.
	X	II Bav.
	XII	Württemberg Div.
	Gd.	Baden Div. (Remained east of the Rhine.)

The Opening Movements (Map 6).—The opening moves by both sides culminated on 6 August in the Battles of Wörth and Spicheren. These were the battles of the frontier. Since they were so widely separated, it is best, for the purpose of clarity, to deal separately with the movements which led up to them.

Wörth.—The presence of a German army in Alsace (German Third Army) precluded the movement of the I Corps across the Vosges to combine with the V Corps. MacMahon, commanding the I Corps, thought that he would have the VII Corps, but this corps was finally held back to block any threat from the Black Forest area. However, MacMahon was ordered to advance to the frontier south of the mountains, despite his inferiority to the enemy he would probably encounter. The German Third Army, advancing on a broad front, reached the Lauter River on 4 August and drove to the south an advance division of the I Corps. MacMahon then decided to occupy a defensive position on the heights to the east of Wörth pending the arrival of the V Corps, which he had been promised. It was on 5 August that the French Emperor decided to create two corps groups* under MacMahon and Bazaine as follows:

<i>MacMahon</i>	<i>Bazaine</i>
I Corps	II Corps
V Corps	III Corps
VII Corps	IV Corps

* For convenience, these groups are hereafter referred to as "armies." They were not so designated at the time, though several writers informally referred to MacMahon's group as the Army of Paris, and Bazaine's as the Army of Metz. Originally the entire French army in the field was officially called the Army of the Rhine. This name later was applied to Bazaine's group only, MacMahon's command being reorganized after Wörth as the Army of Châlons.

The Guards and VI Corps remained in general reserve under orders of the Emperor. No special staffs were available, or formed, and each army commander remained in command of his original corps (Bazaine originally commanded the III Corps). No directive was issued giving a definite mission to each command. MacMahon now learned that he would not have the entire V Corps; instead only one division would move to him on the 6th. MacMahon did not anticipate an engagement that day, but planned to resume the offensive when his reinforcements arrived. Events moved rapidly on the 6th when an advance corps of the Third Army engaged the French I Corps. The German corps became so involved that it was necessary to reinforce it piecemeal with elements of the Third Army as they became available. The initial frontal attacks of the Germans were repulsed. But as the day advanced, their superiority was brought to bear; and MacMahon found himself enveloped on both flanks. He was forced to retire, the retirement being covered by the division from the V Corps which opportunely arrived late in the afternoon. As a result of this engagement the I Corps retired via the gap at Saverne, then through Lunéville and Toul on Châlons, closely followed, in turn, by the V and VII Corps, and pursued at a distance by the German Third Army. None of these forces were involved in the action around Metz, and may be dismissed from mind for the moment.

Spicheren.—When Napoleon III arrived at Metz, 28 July, he found the concentration of the corps behind schedule. Nevertheless, since popular demand required some offensive action, he ordered a reconnaissance in force by the II Corps toward Saarbrücken.

On 4 August, the German First Army advanced on Saarbrücken to protect the advance of the Second Army and to clear the roads in the vicinity before the arrival of the latter. Its advance elements encountered some French forces at Saarbrücken and caused the II Corps to fall back and occupy the heights at Spicheren. The First Army was enjoined not to bring on a general engagement pending the advance of the Second Army. However, the battle of Spicheren was brought on by the activity of the advance guards of the opposing forces and by the aggressiveness of the First Army commander, General Steinmetz. On 6 August, the Germans believed that only small forces were at Spicheren covering the withdrawal of the French. Therefore, in accordance with his assigned mission to cover the advance of the Second Army, Steinmetz decided to attack. The French II Corps put up a stubborn resistance and if reinforced might have driven off the Germans. Bazaine knew of the en-

gements but failed to move forward elements of the III and IV Corps which were within supporting distance. Before late afternoon Steinmetz had committed most of his army and also part of the III Corps of the Second Army, which had arrived during the afternoon. At 1900 hours the French, being unsupported, were forced to retire, their left flank having been enveloped.

Strategic Results.—As a result of these frontier engagements we find the French command thrown into a state of indecision. Their plans to take the offensive, such as they were, had to be discarded. Now what to do? They could endeavor to delay on the Neid pending the assembling of the command of MacMahon to the rear, or they could retire to the Moselle and defend with both armies on that line. However, after days of indecision, it was decided to permit the army of MacMahon to retire on Châlons, while the army of Bazaine was to retire through Metz and Verdun.

So two tactical defeats in one day, involving only a minor portion of the French armies, resulted in the strategic defeat of the French forces as a whole and removed the last obstacle to the concentration of the German armies in the plain between the Moselle and the Saar. Thus ended the first phase of the campaign. The operations of the German armies showed their superior training and leadership, and the great advantage of a definite objective and coordinated movement. In contrast to the Germans we find the French without a definite mission, although an indefinite offensive was forced upon them by popular demand.

Situation 12 August (Map 7).—After their defeats the French armies retired to the west. As stated above, the French command could not come to any agreement as to the future course of action. Finally, it was decided to unite the two armies at Châlons. So on 12 August we find the MacMahon group moving through Toul. Although not closely pursued, MacMahon made no effort to delay the Germans, not even blowing up the tunnels at Saverne or the bridges over the Saar and Moselle. The army of Bazaine had not crossed the Moselle during the intervening six days, but was massed to the east of the fortress of Metz.

The indecision of the French played into the hands of the Germans, for, in accordance with the general plan to wheel to the northwest, it was necessary for the First Army to advance only a short distance while the other two wheeled to the right upon it as a pivot. The Third Army, particularly, needed time, so that it could cross the Vosges and come abreast of the Second. It will be noted that even at

this time the Third Army was echeloned one day's march to the rear. As soon as the armies were abreast, the advance to the west was to continue.

Finally, on 13 August, any idea of delay on the Moselle was discarded, and Bazaine decided to retreat to the west through Metz. The whole of this day was spent in making arrangements for the crossing. It is at once evident that, with the German armies massed one day's march to the rear, the decision to cross the Moselle was made at the last possible moment. There was no call for delay in arriving at what was an obvious decision.

Colombey.—It was not until the morning of 14 August that the retreat of Bazaine's army of 150,000 to the west really commenced. The following comments of Schlieffen were well taken:

"Bazaine had ample time to plan his move to the left bank of the Moselle. A numerous staff was at his disposal, yet all the mistakes committed have been ascribed to him personally. By his march orders he brought only confusion and misery. . . . Five roads were open to him in order to withdraw rapidly with his five corps. His staff told him that if he withdrew on all five roads, it would be a flight, which would have brought him eternal shame and opprobrium, scattered his army to the four winds, exposed it to defeat and brought it to Châlons in small units, only increasing the confusion at that point. . . . He decided to use for the present only the two southernmost roads via Mars-la-Tour and Etain (Map 8), the one with three corps and other with two. Unfortunately both roads formed but a single one as far as Gravelotte. All five corps, with their trains and all belonging to them, had started over this one road in a single monstrous column. The impossibility of executing this soon became apparent."

The German First Army halted on the Neid early on the 14th and pushed out patrols to the front to determine the dispositions of the French. It was not till 1600 that the German VII Corps determined that the enemy was retreating to the west and attacked the French III Corps, which from the vicinity of Colombey was covering the retreat. The French IV Corps was brought back across the Moselle and formed to the north of the III Corps. The engagement was broken off at dark without decisive results for either side. However, what should have been a rear guard action by a portion of the III Corps developed into a passive defense by two French corps. As a result the retreat was delayed by at least one day. Bazaine, who was now in command of all the French forces around Metz, desired to clear the plateau of Gravelotte by

the 15th. This objective was now impossible of attainment. When it is considered that time was essential to the Germans so that the Second Army could swing south of Metz and intercept the retreat, it can be seen how important from a strategic point of view the engagement of Colombey became.

Situation 15 August.—The German First Army, with the exception of the I Corps, had been displaced to the south. The I Corps was left to the east of Metz to cover the communications to the east. The Second Army was well advanced, with two corps across the Moselle. Their passage was unopposed. The Third Army was still echeloned behind the Second, but was now committed to a pursuit of the army of MacMahon. The French army, delayed by the action of the 14th, had crossed the Moselle but had advanced no farther than Rezonville. Bazaine had no elements of his command to the south of the Metz-Verdun road to protect his south flank, although he was aware that the Germans had crossed the Moselle at several points. He made no effort to destroy the bridges south of Metz, or even in the vicinity of the city.

It is of interest to note that the strategic advantage gained at this time by the Second Army was obtained at the insistence of von Moltke, and not because of any long-range planning on the part of the army commander. On 12 August (Map 7), the Second Army headquarters believed that the march to the Moselle had lost its importance. They believed that the enemy, since he had stopped east of the Moselle, entertained offensive intentions against an opponent twice his strength. Hence, wishing to move shoulder to shoulder with the First Army, Second Army headquarters had developed a plan for an advance in the direction of Metz instead of on Pont-à-Mousson. Moltke saw in the position of the enemy only a temporary delaying action and insisted on the continuation of the pivot based on the First Army, which would ultimately result in the interception of the French (Map 8).

Operations 16 August—Vionville-Mars-la-Tour.—On the 16th occurred the action at Vionville-Mars-la-Tour which arrested the retreat of the French army to the west. It will be recalled that the French, 150,000 strong, were retreating to the west on only two roads. Bazaine did not use the road through Briey, either because it was rough and hilly or because he thought the Germans might intercept his movement.

The German Second Army was told only that the French retreat was over the Metz-Verdun road and was left at liberty to make its own dispositions to intercept the enemy. Accordingly, the III and X

Corps were pushed toward Vionville, preceded by the 5th Cavalry Division, reinforced with some light artillery. For some unknown reason, the French columns did not continue the retreat until noon. Hence, just before noon the German cavalry was able to attack the advance French cavalry, still in camp, in the vicinity of Mars-la-Tour. The latter, surprised by artillery fire and a mounted attack, fled precipitously to the rear. The German III Corps now advanced and engaged the French II Corps. By 1700 the French had committed the III and VI Corps, while the Germans had reinforced their III Corps with elements of the X Corps. This engagement around Vionville lasted till dark, with both sides remaining on the field of battle. Tactically, neither side could claim a victory, but for the Germans it resulted in the strategic defeat of the French. This action is important in that the Germans by a bold employment of a small fraction of their forces stopped the retreat of the enemy and provided time for the advance of their main body between the two French armies. The action of the German III Corps was bold, to say the least, and gave the French an opportunity to defeat this corps before the remainder of the army could come to its assistance. Had the French been aware of the situation and had they taken full advantage of their numerical superiority, the Germans would have been decisively defeated. The X Corps, following its training of "moving to the sound of the guns", saved the III Corps early in the afternoon. With the offensive goes the initiative, and this action illustrates the advantages of the initiative. Although there were but 60,000 Germans on the field of battle, they defeated 150,000 Frenchmen.

Gravelotte-St. Privat (Map 9).—The French troops moved early on 17 August to a strong defensive position west of Metz, as shown on the map. Bazaine, expecting an envelopment of his south flank, placed his reserve behind this flank, although his north flank was open. The Germans did not renew the attack on the 17th, concentrating the two armies for an attack on the 18th. However, on the 17th no effective reconnaissance of the French position was made to determine the position of the flanks of the defensive position or the exact location of the defensive line. Late 17 August there was no definite information upon which to base the operations on the 18th. It was believed that the French north flank was in the vicinity of Montigny, although it should have been hard to conceive how they could effectively mass 150,000 troops between Montigny and Rozerieulles. So the German plan of attack for the 18th of August was for the VII and VIII Corps to attack the south

wing while the XII and Guards Corps enveloped the north flank; the IX Corps to attack frontally just north of the VIII Corps. The III and X Corps, exhausted from the action of the 16th, were to follow in reserve. The II Corps was at Pont-à-Mousson.

The action on the 18th developed into a series of uncoordinated frontal attacks. When it was gradually disclosed during the action that the French flank extended as far as Roncourt, the attack was extended to the north. The heaviest losses were sustained by the German IX and Guards Corps, which attacked frontally in mass formation. The German attacks on the south were repulsed by employing a part of the French Guards. The Germans were able to hold their own on this flank only by the timely arrival, about 1700, of the II Corps from Pont-à-Mousson.

The decisive action of the day occurred about 1900 when part of the XII Corps finally turned the north flank, causing the retreat of the French VI Corps, which in turn forced the retirement of the entire line. By the next morning the French had evacuated the entire position and had withdrawn into Metz. There were engaged or on the battlefield this day 180,000 Germans and 150,000 French. The losses were: Germans, 20,000; French, 13,000.

When the French took up the defensive position in front of Metz, they were doomed to defeat. Their only hope, which still remained on the 17th, was to withdraw to the north in an effort to join forces with MacMahon somewhere north of Châlons. However, the fateful attraction of a fortress for a defensive army seemed to drive from their minds any idea of retreat to the northwest.

In his book Schlieffen commented at length on the failure of the Germans to envelop the position from the north and their un-failing tendency to move shoulder to shoulder in massed frontal attacks. Some of his most pertinent comments are given below:

"The generation of 1870 lived on Napoleonic traditions. But what had been borrowed from the treasure trove of the Great War Lord's campaigns was not taken from his great victories at Marengo and Friedland, but from the period subsequent to the Russian defeat. It was left unheeded that Ulm and Marengo had been won by a tremendous strategic envelopment, Jena by another wide envelopment, Austerlitz and Friedland by attacks against one flank. Imagination was excited by the gigantic attack of Leipzig on 16 October against the center of the enemy and by repeated attempts at Waterloo to penetrate the English front. It was forgotten, through their very magnitude, that these attacks had miscarried and brought about the tragic end of the Corsican hero. Since that

time the prerequisite to victory was thought to be the massing of troops for battle. Marches had to be executed in deep, dense columns; the army assembled in narrow, deep formations."

In order to develop rapidly for the attack, we now teach that a large unit should march in several columns. Here we find Schlieffen stating:

"For rapid deployment, according to Moltke's opinion, the march columns were still too long and at the present day, having been considerably increased, they would still be longer. It is impossible to shorten them during a long advance. But, on nearing the enemy they must be divided, by divisions and brigades, into two, and whenever practicable into four, columns which can use parallel roads or, where such cannot be found, to march across country.

"Napoleon declared, when he found himself numerically inferior in the autumn of 1813, that the decisive point was the front, and assembled there his not inconsiderable forces. A heroic, a super-human attack, an annihilating penetration was to be executed. The future depended on it; it had to decide if 'the world was to be once more turned upside down.' The monstrous attack failed as so many of those preceding it had. And then the inevitable occurred. The man who did not wish to envelop was enveloped on both flanks, pressed together, encircled, and would have been annihilated if cowardly fear had not left a back door open to the 'Terror of Europe.' This much is certain—be one the stronger or the weaker—he who does not want to envelop both flanks will or can be enveloped on both flanks, and he who limits himself to attacking one flank only, exposes himself to the danger of being attacked on the other. Hannibal, consequently, did not reinforce the front at Cannae, but reduced his strength to one third of that of the enemy. This caused the weak front to be driven back by the great pressure of the hostile mass. So much the easier was it for the Carthaginian flanks to advance, to envelop the opposing Roman flanks, and soon to stop the retreat and begin the pursuit.

"Today, as at Cannae, the center can be skeletonized on account of modern fire-power—though it can still attack successfully as the Prussian Guards did on 18 August. Even today can the flanks extend for an annihilating embrace; and it is still possible to hope that the enemy, like Terentius Varro at Cannae, Napoleon at Leipzig, Benedek at Königgrätz, will concentrate his mass.

"The Germans marched to the Saar and to the Moselle according to Napoleon's mass tactics. They were to overwhelm the hostile position by continuous well-reinforced frontal attacks, shock after

shock. They tried to achieve this also at Gravelotte and accomplished nothing but complete failure. At St. Privat, the deep columns saw long lines before them against which they could do nothing."

Gravelotte to Sedan (Map 10).—Returning to the French forces left in the field, we find that the I and V Corps moved to Châlons by rail and marching, arriving there on 21 August. The VII Corps, having never seen the enemy, joined MacMahon on the 22d. A XII Corps was formed at Châlons from forces brought from the Spanish frontier and from other scattered units. MacMahon now had 135,000 infantry, 15,000 cavalry, and 400 guns. His force was designated the Army of Châlons.

To MacMahon there were open three lines of action:

- a. Move so as to protect Paris.
- b. Attempt to relieve Metz and the army of Bazaine.
- c. Attempt to defeat the German armies.

MacMahon decided to retreat toward Paris and as a result of the decision moved on Reims. The execution of this plan was hardly initiated when, under pressure from Paris, he decided to move east in an effort to relieve Bazaine. Thus, on 22 August, MacMahon, with his Army of Châlons in the vicinity of Reims, was committed to a move on Metz, while between him and his objective were two German armies.

Following the Battle of Gravelotte-St. Privat the Germans decided to invest Metz with the First Army and a portion of the Second (total, 200,000). There was formed a new army, called the Army of the Meuse (or Fourth Army), from the Guards, IV, and XII Corps and the 5th and 6th Cavalry Divisions. This army and the Third (total, 240,000) on 22 August were confronted with the task of preventing MacMahon from relieving Metz, or in any event of intercepting the French in the field. At this juncture it was decided to move directly west with both armies pending information on the direction taken by MacMahon's army.

It was not till 25 August that the Germans definitely ascertained that the French army was moving to the east and was in the vicinity of Reims. At this time it was decided to wheel to the north, pivoting on the Fourth Army. The original mission to drive the enemy upon the Belgian border was now possible of attainment. By 28 August, it was evident that the Germans had effectively blocked MacMahon from any movement on Metz. The French, arriving at

the same conclusion, moved slowly and leisurely toward the Sedan-Mézières area. On 30 August, the IV German Corps encountered the southern elements of the Army of Châlons (VII Corps) encamped south of Beaumont and immediately attacked. The IV Corps was reinforced by portions of the XII and IB Corps. The French VII Corps retreated rapidly to the north and precipitated the flight of the Army of Châlons toward the fortress of Sedan.

Sedan (Map 11).—Following the action of the 30th, it became evident that the French were conducting a disorderly retreat toward Sedan. The German orders for the 31st were designed to prevent the escape of the French army. The Fourth Army crossed two corps (Gd. and XII) to the east of the Meuse to intercept any retreat to the east, while the Third Army, to block any move on Mézières, was to move with its bulk west of Sedan.

The French occupied a defensive position at Sedan as shown on the map. MacMahon considered the position strong and believed that it would cover his further retreat toward Mézières. He did not believe that the German advance would extend far enough to the west to intercept this final avenue of retreat. It will be remembered that the Belgian border, some 10 miles to the north, precluded any retreat in that direction. Although the French position had secure flanks, it had the disadvantage that an attack against either wing took the other wing in flank and rear. When the Germans ordered the XI and V Corps through Donchery on the Sedan-Mézières road, and the XI Corps crossed the Meuse, at 0600, 1 September, the doom of the Army of Châlons was sealed. During the day the Germans drew the net still closer around the French. The IB Corps, moving out early, found the bridge at Remilly destroyed, but seized, before it could be destroyed, the railroad bridge opposite Bazeilles. Placing two ponton bridges above this bridge, the entire corps crossed and by 0900 was engaged near Bazeilles. By 1000 the IV, XII, and Gd. Corps had extended the line north to the town of Givonne. Also, by this time, elements of the XI and V Corps had advanced to Floing Creek. The IIB Corps, taking position across the Meuse southwest of Sedan, blocked any retreat in this direction and, in addition, concentrated its artillery fire on the French across the river.

Marshal MacMahon was wounded early in the morning and turned over the command to General Ducrot. The latter, at 0700, believed a retreat on Mézières was indicated by the hostile situation, and issued orders accordingly. There had arrived on the scene, on 30 August, General Wimpffen. He had come from Africa via Paris

and had two secret ministerial orders in his pocket, one appointing him commander of the V Corps, the other giving him command of the army if anything happened to MacMahon. He did not make known the latter order until he found that Ducrot had ordered the retreat. This he deemed impracticable, and hardly had the movement been started than he took command and called a halt. He planned a diametrically opposite course of action, to break out in the direction of Carignan and effect a junction with Bazaine. He made two unsuccessful attempts, one at 1000 and one at 1400. By 1000 the French were entirely surrounded, and it was necessary only to apply pressure on all sides to bring home to the commander the hopelessness of the situation. The further advance of the V and XI Corps on the north caused Wimpffen to reinforce that front with elements of the I and V Corps. It was to no avail. By 1500 hours French troops were moving south into Sedan. The German artillery on the east shelled the town, adding to the confusion there. Seeing that further resistance was useless, the French at 1700 hours raised the white flag of surrender. Negotiations were carried on during the night and at 1100 hours, 2 September, occurred the formal capitulation. The Germans lost 9,000 men, while the French lost 17,000, mostly from artillery fire. During the engagement the Germans captured 21,000 prisoners, while 83,000 surrendered at the capitulation, making a total of 104,000 prisoners. Metz surrendered on 29 October. However, to all intents and purposes the campaign was over on 2 September. Thus in the short space of one month the entire French army had been removed from the theater of operations. We shall not discuss the move on and occupation of Paris.

In order to impress upon our minds the nature of this operation, there is shown on Map 12 a review of the advance of the German armies which culminated in the Battle of Sedan. The strategic turning movement on a large scale, forcing the enemy against an obstacle (Belgium), becomes very apparent.

Here was the modern Cannae as far as Schlieffen was concerned. This he held before the German Army as the model toward which it should strive. Although he criticized it in its minor details, he nevertheless placed this campaign before his contemporaries as the model Cannae, the quick decision, the campaign culminating in the battle of annihilation.

It is thought well to quote some of the more interesting and pertinent comments with which he concluded his theme:

"A battle of Cannae had at last been fought, a complete encirclement of the enemy achieved. None of the great generals of the

last century had known the principles applicable to that battle on the Aufidus. Only its final results floated before their eyes as a hazy but desirable objective.

"Napoleon likewise preceded his annihilating battles by wide (strategical) envelopments which, however, were not executed like those of Frederick with a minority in the vicinity of the battlefield, but by maneuvering for days and weeks in a wide arc with vastly superior numbers, attacking the rear of the enemy. He then executed tactically a double envelopment or, better still, allowed the weaker enemy to attack him in order to strike the annihilating blow after the exhaustion of his opponent. From the very beginning he made Hasdrubal's decisive attack on the enemy's rear. He enveloped his opponent on both flanks, threatened his communications, and left open to Austrians and Prussians only the front in the direction of France. Thither they must go, followed by superior forces. This brought at Marengo and Ulm the immediate annihilation of the enemy. At Jena it had to be attained by a lengthy pursuit.

"There is risk connected with every wide envelopment. The opponents of Frederick as well as of Napoleon had to learn this. They also wanted to fight a battle of annihilation, envelop the enemy with superior forces, and attack him in flank or rear. The plan failed at Rossbach, Liegnitz, and Austerlitz because the enemy on his part struck the head of the enveloping columns with superior strength.

"Once more did Napoleon fight an almost annihilating battle. The enemy placed himself at Friedland in a position exceedingly favorable for his annihilation. He had his rear against the Alle, the front facing an enemy of almost double his strength and, moreover, burnt the bridge which alone could help him to escape. The annihilation did not entirely succeed because Napoleon attacked only one flank and the front, leaving the other flank free because he wanted to keep strong reserves for eventualities. These strong reserves could not decide his battle but could indeed lessen his victories.

"According to the principle of Cannae, a broad battle line advances against a narrower but generally deeper one. The overlapping flanks envelop the hostile flanks; the cavalry attacks the rear. Should the flanks be separated from the center, for some reason or other, it is not necessary to assemble them again in order to continue the enveloping maneuver, for they can be sent at once against the flank and rear. This was what Moltke called 'the concentration on the battlefield,' and he declared it as the highest form of generalship. It is also the most effective and, of course, the most

risky. Most generals and almost all able commanders apprehend the danger of defeat in detail and zealously endeavor to bring about the junction of separate units, not on the battlefield itself but as long as possible before the battle. In this manner they relinquish all chances for a decisive victory and must be satisfied with a lesser success or with none whatever. Moltke would have experienced the one or the other had he listened to the advice of his contemporaries and subsequent critics and had initially assembled the three armies at Königgrätz. There exists, it is true, the danger of defeat in detail. Cannae itself proves this; also Blücher in 1813 at Lowenberg and Schwarzenberg at Dresden; and the Prussian First Army might have proven it at Königgrätz had Benedek started early in the morning of the 3d July to attack Prince Frederick Charles (Prussian First Army) with his entire force. The final result would have been that the victor would soon have had to leave the vanquished in order to turn against one of the enemies who was threatening his flanks; the defeated opponent would again advance and so through apparent victory the final encirclement and annihilation would be materially furthered, if not completed. This is exemplified by the campaign of 1813 and by the wars of 1815 and 1866. In order to defeat one of the separated armies and destroy it, it is necessary that the other armies be out of supporting distance (Prague in 1757). Should they come too close, the assembled forces must be divided. Units fight units. The weaker enemy standing in the center has no preponderance anywhere and is lost as soon as it is possible to assemble the forces of the stronger opponent on the battlefield, as at Leipzig, Waterloo, or Königgrätz.

“A frontal attack (holding attack) must precede the enveloping attack. The enemy must be fully occupied so as to be wholly unable to meet the enveloping attack. If the attack is first launched by the enemy who is to be enveloped, like Melas at Marengo, Hohenlohe at Jena, Napoleon at Waterloo, so much the better; if not, the other side must decide to take the burden upon itself.”

“A complete battle of Cannae is rarely met in history. For its achievement, a Hannibal is needed on the one side and a Terentius Varro on the other, both cooperating for the attainment of the great objective.

“A Hannibal must possess, if not a superiority in numbers, the knowledge of how to create one. It is desirable for this purpose that the general combine in himself something of a Scharnhorst, a Frederick William, or a William I to weld together a strong army; something of a Moltke to assemble it solely against the principal

enemy; of a Frederick the Great to bring all his guns and rifles into action; of a Frederick the Great or a Napoleon to direct the principal attack against the flank or rear; of a Frederick the Great or a Moltke to replace the absent Hasdrubal by a natural obstacle or the frontier of a neutral state. Lastly, there are needed subordinate commanders, well trained in their profession and able to comprehend the scheme of maneuver of higher headquarters.

"A Terentius Varro has a great army but does not do his best to increase and train it. He does not assemble his forces against the principal enemy. He does not wish to win by fire superiority from front, flanks, and rear, but by the weight of masses in narrow and deep formations, selecting for attack the hostile front as being the side most capable of resistance.

"All the desirable qualifications will not be met with or combined in a single person on either side. A few of Hannibal's qualities and some of the means at his disposal have been possessed by other generals in history. Terentius Varro, on the other hand, has existed during all periods of history. Thus it happens that, though no real Cannae, with the exception of Sedan, has been fought, there has been a whole series of nearly annihilating battles, and these have always occurred at the turning points of history."

Schlieffen died 4 January 1913, at the age of 80. It is to be lamented that the great strategist did not live to see his teachings culminate in the modern "Cannae" of Tannenberg. Although Schlieffen's dying words are purported to have been "make the right strong", it is just as well that he did not live to see his emasculated plan for the invasion of France put into operation by the younger von Moltke.

Map 13 shows on one sheet the patterns of the maneuvers of Marengo, Ulm, campaign of 1870, and Schlieffen Plan of 1905. The similarity between these maneuvers at once becomes apparent. In each of these classic examples the turning movement was from only one direction, for in each case the attacker proposed forcing the enemy against an obstacle, so that his only line of retreat would be toward the mass of the attacker. At Marengo, Melas was to be forced against the western Alps; at Ulm, Mack against the Black Forest; in 1870, the French against the Belgian border; while Schlieffen in 1905 envisioned encircling the French from the west and forcing them against the obstacles of Switzerland and the Moselle. The Sixth and Seventh German Armies in Schlieffen's plan were to advance at once toward Nancy in an attempt to goad the French into an offensive in Alsace-Lorraine. Thereafter they would go over to the defensive until the encircle-

ment from the west was completed. At this time they would attack to convert the entire operation into a double envelopment and a true battle of annihilation.

What would have been the results in 1914 had the Schlieffen Plan been adhered to is a matter for academic discussion. Most strategists believe that if Schlieffen's plan had been followed in its entirety it would have produced decisive results. The great Schlieffen postulated wide frontages and weak forces as defensive foils against an impulsive opponent, while massing a maximum of combat power for the wide and deep envelopment of an exposed and vulnerable flank. He was followed by the younger von Moltke, who let slip the chance for a great victory through his espousal of the age-old fallacy of opposing strength to strength, mass to mass.

Schlieffen has become known to the military world only since the World War I. Although he never had the opportunity to command large forces in the field, he is recognized as having had one of the keenest military minds of modern times, and will undoubtedly go down in history as one of the great strategists of all time.

