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**Peter Paret: The Cognitive Challenge of War**

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## I



# Two Battles

These pages discuss the response to innovation in war. “It is right to learn even from one’s enemies,” wrote Ovid. Right, but not necessarily easy. In exploring the issue, I shall address specifics much of the time, but to begin it might be useful to remind ourselves of some basic facts.



## I

The components of war—mobilization of human resources, discipline, weapons, tactics, strategy, and much else, the issues they raise, and the problems they pose—are timeless. But the forms they take and the social context that does much to shape them are always changing. How people react to change and innovation in war, or fail to react, is as meaningful as are the changes themselves. Responses are of two kinds. One is the military’s desire and ability—strong or feeble—to master innovation, whether in technology, doctrine, or policy. The response may be to specific issues—the introduction of the tank and of poison gas in the First World

War, the emergence or reemergence of the suicide bomber in our time—or to broad developments, in recent centuries, for instance, the Western world's growing reliance on conscription. The other response is that of society itself, the public's awareness of a new weapon or of one or the other belligerent's motives and methods that seem to reflect new ideas. Here the principal problem is not how to defeat or make use of innovation, but how to live with it. An example is the tolerance of modern societies to wars of long duration and to casualties that in a week may run into the thousands, as happened in the two world wars.

The two kinds of response bear on each other. The soldier's knowledge helps guide public opinion; social characteristics and attitudes influence the soldier's analysis. The importance of the military's response is obvious, but the response of society to new ideas or methods in war, driven less by analyses than by anxiety and assumptions based on class and culture, is also significant. It may influence immediate events, stimulate confidence or fear, and, as it blends with other tendencies, color more lasting attitudes and expectations. As much as the military's response, a society's reaction to its perception of the new in war affects subsequent policy and behavior.

To recognize innovation, whether in military institutions and how they function, or in their leaders and how they think, is itself a change. Even then society and soldiers will not find it easy to understand the new. Cultural preconceptions and institutional and individual self-interest may block

understanding. Further cognitive barriers add to the difficulties. In any conflict, the enemy's stated or perceived aims, the likely consequences of defeat, affect reactions to the war. A third barrier, beyond the need to comprehend what may now be expected in war, and how a particular war may alter one's condition, is or may be the challenge of understanding war itself. To achieve it is not always necessary. A weapon or method can be countered even if one does not see beyond the immediate issue. Still, a broader understanding remains desirable. Above all, it is important to keep in mind that wars are fought not to be won but to gain an objective beyond war. War, however, is not only a complex social, organizational, technological, and political reality, its ambiguous character engages emotion as well as reason. Once combat begins and people die, it may be difficult to remember the instrumentality of war, and to realize that victory is not invariably followed by reward. Everything in war may have consequences beyond the operational or strategic intent. How often has success itself proved counterproductive—perhaps because of the manner in which it was achieved! War exists to implement policy, whether or not that policy is rational. But war also creates conditions and engenders feelings that may weigh on and interfere with its instrumentality. The employment of violence can be rational. And yet violence and its effects are always emotional and subject to the irrational—even when the violent act is justified, as it may be in self-defense. The emotional impact of violence on perpetrator and recipient never dissipates in a vacuum. When soldiers burn a village

or kill prisoners because a civilian has fired on them, when a politician proclaims that “to end the war prematurely would betray the men who have fallen,” war has changed from a tool of policy to a force that imposes—or seeks to impose—its own emotional demands.

Innovation in war may be a sociopolitical issue—for example, in determining who serves. It may relate to organization, technology, operations, and tactics, or to ideology. The adoption or rejection of the opponent’s innovation is one response; devising new countermeasures is another. The challenge of innovation is intensified by the extremes of organized violence that are central to war. New weapons or methods often appear in highly charged situations, which affect the response to them.

We can study how the challenge of innovation has or has not been met in the past by universalizing the process, always recognizing that general statements on complex phenomena devalue nuance and rely on abstraction, the precision of which may vary. Or we can trace the interaction of innovation and response in the unique forms it assumed at a particular place and time. In choosing this second approach here, I am not suggesting that a given set of circumstances or sequence of events will reveal a general pattern, only that the concreteness of the single episode, how challenge and response engage and play themselves out in their historical context, may also offer insights into their generic nature and dynamic. In these pages I shall try to consider specific events without losing sight of the general issues they exemplify.

The historical episode I want to address is the war of 1806 between France and Prussia and some of its consequences. A discussion of generalities in their historical context will find the Napoleonic wars a useful arena. They occurred at a time of great change in the organization and use of force. They have been much explored and are familiar even to nonspecialists. Among them, the war of 1806 has advantages and disadvantages for our purpose. Two systems of warfare clashed, and a conventional, time-tested way of raising troops, of training and fighting, was not only defeated but demolished. To be sure, the belligerents were not equal in military power and economic resources. The Prussian army had not seen action since the middle 1790s, after which the French army had become the strongest and most seasoned military force in the world. The French also began the war with a strategic advantage, the war of 1805 having ended with parts of the *Grande Armée* remaining deep in Germany. The outcome of such an uneven conflict may therefore prove little. But history is better at revealing than at proving, and states do not interact in controlled laboratory conditions that allow comparisons of precisely equal elements. We must study war in the shifting reality in which it occurs.

## ▣ 2 ▣

The conflicts between 1792 and 1815 mark stages in a system of mobilizing men and resources and of warfare that emerged in the revolution, to be further developed under Napoleon. In always different combinations of plans and execution, new

elements interacted with institutions and methods retained from the ancien régime. By 1806, roughly halfway in this dense sequence of wars, the new system had matured and was not yet declining into the less supple, increasingly weary forms it assumed in the empire's later campaigns. Napoleon thought the army of 1806 the best he ever led.

Conditions on the other side were more complex. The Prussian army was no longer that of Frederick the Great. But despite many changes, its organization and doctrine remained basically those of his last years. Some officers serving against republican armies in the early 1790s recognized the need for adjustments. In 1795 a Military Reorganization Commission was established. But it dealt principally with the increase in territory and population resulting from the Third Partition of Poland, and the changes it instituted did little to improve the army's performance in 1806. Another change, this one certainly significant, was a step backward: the strategic and operational thinking of the men now in charge was less imaginative, more cautious, than it had been under Frederick, who tried to impart to his senior generals some of his own uncompromising understanding of the use of force. Under his very different heirs, the Prussian military were ill prepared to learn from, let alone accept, the republican armies' innovations in organization, command, and execution.

To soldiers wherever they served, the wars of the French Revolution and of Napoleon posed problems ranging from the methods of raising troops and the structure of military

forces to ways of fighting. To their societies the technical challenge of the wars was less important than their psychological, social, and moral impact. Looking back from the 1820s, Clausewitz noted that these wars had moved from the eighteenth-century ideal of limited conflict between standing armies, which left the social and economic environment relatively untouched, toward a new concept of unlimited or “total” war. In one of the last chapters of *On War*, he wrote that after 1792 “war, untrammelled by any conventional restraints, . . . [broke] loose in all its elemental fury. . . . Will this always be the case in the future? From now on will every war in Europe be waged with the full resources of the state . . . ? Such questions are difficult to answer.” Clausewitz concluded his statement by extending his definition of war as unalloyed violence into a historical and predictive dimension: “But the reader will agree with us when we say that once barriers—which in a sense consist only in man’s ignorance of what is possible—are torn down, they are not so easily set up again.”<sup>1</sup>

Before the revolution the separation of war from civilian life was far from absolute, but it was more protective—especially in its exclusion of the middle range of society from military service—than the later concept of total war, which was to receive its loudest welcome in totalitarian regimes but was embraced elsewhere as well. In the conflicts that began in 1792 and changed Europe’s political organization and part of its social structure, contemporaries experienced the events of 1806 as a powerful illumination of the



new way of war, perhaps even of a new Iron Age descending on Europe.<sup>2</sup>

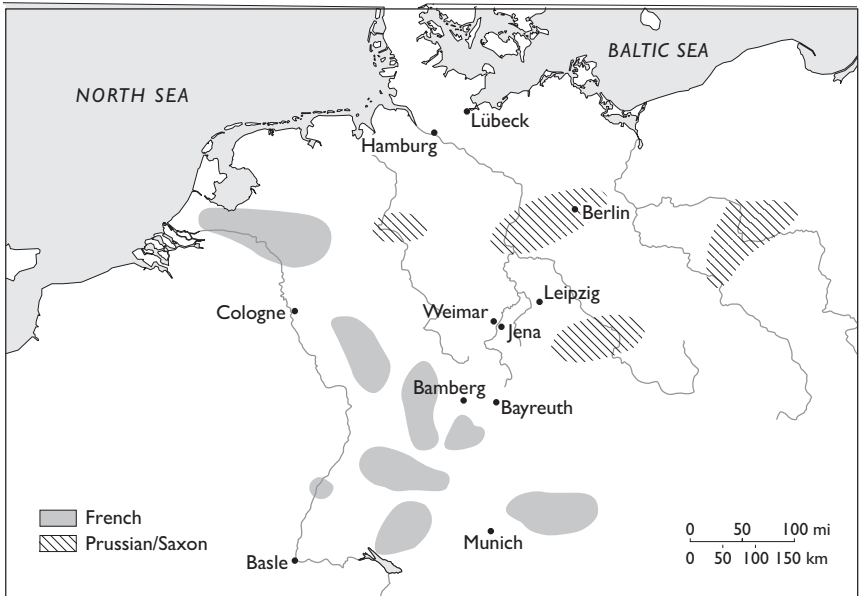
I shall now outline the campaign of 1806, the methods of the French army, and the difficulties the Prussians experienced in countering them. The following chapters address responses to these events. This chapter provides the raw material, which the succeeding chapters convert into discussions of art and literary history, political history, and the history and analysis of theory. The second chapter shifts from campaign history to examine German reactions to 1806 in broadsheets and in the fine arts and literature, which signal the extension of war to all classes of society, an expansion that created a new environment for policy and theory. In a further shift, the third chapter addresses Prussian political and institutional responses to the defeats. Social and political change, military reform, paintings and popular prints, novels and dramas—all respond to the new, and all bear on each other. The final chapter takes up yet another perspective by examining the ideas of several theorists of war, in particular of two men, who fought on opposing sides in 1806, Jomini and Clausewitz. Their considered reactions to their experiences link the war of 1806 to two competing ways of thinking about war, which were to have a long life and continue to influence us today.

### ▣ 3 ▣

In 1795 Prussia withdrew from the War of the Second Coalition against France and for the next decade followed a policy of neutrality, claiming the role of protector of the

north-German states, while extending her rule to the territories gained in the last two partitions of Poland. In the meantime French expansion in Italy, Germany, and the Low Countries continued. War resumed in Central Europe in 1803. Napoleon's hint that he might cede Hanover to Prussia induced Berlin not to join the new anti-French coalition. After occupying Vienna and defeating the Russians and Austrians at Austerlitz, parts of the French army took up quarters in southern Germany, and Prussia found herself not only politically but strategically isolated, a condition that a new secret agreement with Russia could not immediately lift (map 1). At last recognizing the danger, which even less clumsy diplomacy might not have avoided, Frederick William III ordered the partial mobilization of the Prussian army, called on his reluctant ally Saxony for assistance, and demanded the withdrawal of French forces from Germany. Napoleon replied by instructing his ambassador to leave Berlin unless Prussia demobilized. He ignored a new ultimatum, and on October 9, before Russian armies had come to her support, Prussia declared war, an ill-considered measure to forestall a French attack.

Prussia went to war to restore the status quo. Napoleon's intentions were more expansive. Victory would bring all of Germany under his control, extend his reach along the Baltic into Eastern Europe, deny Continental markets to the British economy, and mount a threat or draw a forward line of defense against Russia. His resources seemed adequate for the purpose. The population of France, to mention only this,



MAP I

French and Prussian Troop Concentrations, September 1806

was three times that of Prussia, as Napoleon pointed out in a taunting letter to Frederick William as the first shots were being exchanged.<sup>3</sup> Yet the first weeks of the war, which were also its decisive phase, did not reflect this disparity. Considering only the size of the opposing forces in October, a Prussian victory remained possible and might have blunted the French threat until Russian help arrived. But already at an early stage weaknesses became apparent, ranging from the strategic conceptions of the senior commanders to the army's organization and tactical methods, which were to hinder Prussian operations throughout the campaign.

Frederick the Great had put his trust in rapid offensives with concentrated force, even at the risk of leaving important targets unprotected, as he allowed Berlin to be raided by Austrian and Russian forces in the Seven Years War. Very different was another influential strategic system, which de-emphasized battle and instead stressed the art of controlling key points and of maneuvering the enemy into unfavorable positions, even at the cost of dividing one's forces. In 1806 the Prussian commander-in-chief, the Duke of Brunswick, did not discount the importance of physically defeating the enemy; but he could not free himself from seeing battle as a dangerous last resort, and as the king's presence with the army led to frequent councils of war, arguments in favor of caution and safety inevitably diluted more aggressive proposals—a problematical response to an opponent who expanded on Frederick's rapid deployment of concentrated force with larger armies and far more ambitious goals.

The organization of the Prussian army acted as a further brake. Above the regiment, its executive and administrative structure was adequate for maneuvers; in war it was stretched to the limit. Despite some last-minute reshuffling of the table of organization, regiments were not grouped in permanent brigades, in which they learned to act together. The senior staff officers of the field commanders had limited authority and differed in their operational concepts. The commander-in-chief's staff, small and further handicapped by a scarcity of maps, found it difficult to coordinate the various parts of the army. Disciplinary concerns and the

prevailing moral code precluded soldiers from living off the land, which tied the army to a ponderous network of depots and supply trains and reduced mobility, the more so since, in contrast to the highly drilled rank and file, the wagoners and drovers were civilians. Nor was it helpful to burden the supply service with grooms and hay wagons for the horses infantry officers kept to ride or use as carriage horses on the march—one of several ways the privilege of rank slowed the army. In these matters the French were more consequential. When Napoleon issued operational orders to his marshals, he did not feel it beneath his dignity to warn against the presence of unauthorized horses.<sup>4</sup> Like their opponents, the French never had sufficient maps and suffered from the difficulty of coordinating widely separated units by means of messengers. Napoleon's constant demand that his generals keep him informed of their location did not prevent an entire corps from slipping out of his control during the campaign. But his strategic sense, operational intelligence, and energy made up for these and other flaws.

Prussian weaknesses in organization were amplified by a tactical system less versatile than that of the French. In itself that need not have been fatal. The high casualties the French were to suffer in 1806 suggest that Prussian tactics, however old-fashioned, might yet have succeeded had the army been organized in larger units, with a strong central command and better means of control and communication. But deficient tactics made success even less likely and turned defeat to disaster. Eighteenth-century war, whatever its for-

malities, had responded realistically to the society, political culture, and military technology of the time. As perfected under Frederick, Prussian tactics defeated opponents using basically similar methods. When changed political forces affected the conduct of war toward the end of the century, the Prussian system no longer worked as well.

French and Prussian tactics remained similar in some respects, yet in recent years they had developed significant differences. In both armies the infantry fought in linear formations. It required intense drill and discipline to open marching columns into the extended lines of two or three ranks that enabled large numbers of men to fire simultaneously or to deliver the irregular but continuous fire to which volleys degenerated in combat. Endless training was needed to change the direction of the line, or convert firing lines to bayonet charges or into battalion squares to repel cavalry. In the French army marching columns could also thicken into so-called battalion or attack columns, wider than deep, which brought large numbers of men quickly to the enemy—a formation in Prussia still rejected in favor of the more difficult method of advancing in line. Columns and lines could detach groups of skirmishers to cover their movement and to fight in woods, broken terrain, or villages. That was also done in Prussia, but rarely since it went against the assumption that only absolute trust in the linear system could fuse large numbers of men into the mobile cohesion that was its greatest strength. How was the same soldier to be taught the automatic responses demanded by linear tactics and the initiative

required in skirmishing? The French army solved this problem by making do with less precision and slower volleys, and by relying on the ambition, good will, and patriotic commitment of the rank and file, turned by the revolution from subjects to citizens of that great abstraction, the nation. Prussian soldiers, in contrast, were still the product of regionally centered, corporative societies, the privileges and duties of each constituent group fixed by law and custom. Soldiers came from the least privileged segments of the population, mainly agricultural laborers tied to the land, or were foreigners serving for pay. The harsh discipline to which they were subject was not moderated when complexities of drill proliferated after Frederick the Great's death.

By 1800 the French had gone far to develop tactics that responded to the new possibilities the revolution created. Line and column were made more versatile by attaching a company of light infantry to each infantry regiment for skirmishing and scouting. But whether soldiers wore the uniforms of grenadiers, line infantry, or *voltigeurs*, all were expected to fight with reasonable competence in column, line, and open order. At the time some observers regarded French infantry tactics, especially skirmishing, as the decisive innovation of the new wars. In works soon translated into French and English, a German analyst, the former Prussian officer Heinrich Dietrich von Bülow, predicted that future battles would be fought by skirmishers.<sup>5</sup> Others saw the new tactics merely as one important change among many. For everyone they marked an obvious, factually and symbolically significant

difference between the old and the new—between drilled mechanical obedience and the self-sufficient skirmisher and sniper.

The need to expand tactical possibilities did not go unnoticed in Prussia. Combinations of open and close order were tested, but it was decided to develop specialists instead: fusilier or light infantry battalions, drilled formalistically to break up the close formation and fight *en debandade* with a plethora of signals and commands, and one regiment of *chasseurs* or *Fussjäger*, an elite unit armed with rifles rather than muskets. Its men mostly came from a better order of society than did grenadiers or musketeers: from families of small landowners, foresters, minor officials. Drill and discipline were less harsh, and after retiring they could expect employment in the state administration. In an army dominated by tradition, the *Fussjäger* were a force for modernism; but the regiment also exemplified the army's segmented character, and its 1,500 men were never sufficient to confront "the new Gauls" in forests, hills, and villages where the line soon became helpless.

The cavalry matched the infantry's low level of integration. In peacetime it rarely trained in large formations; in war it was not, as in France, routinely committed in massive force once artillery fire and infantry volleys weakened the enemy line. Instead, regiments or even squadrons were frittered away in costly attacks. The artillery suffered similar disjunctions. Light guns were attached to each regiment, but their effectiveness was limited, and they slowed down the infantry. The



heavy artillery was difficult to move and supply; much of it was not even mobilized in 1806. Only horse artillery could keep up in mobile operations. In the campaign that now began, Prussian commanders rarely matched their opponents' practice of massing artillery to support an advance or repel an attack. The two armies had similar social and political antecedents in early absolutism; but more recently, in response to the pressures and opportunities of the French Revolution, one had taken a new direction.

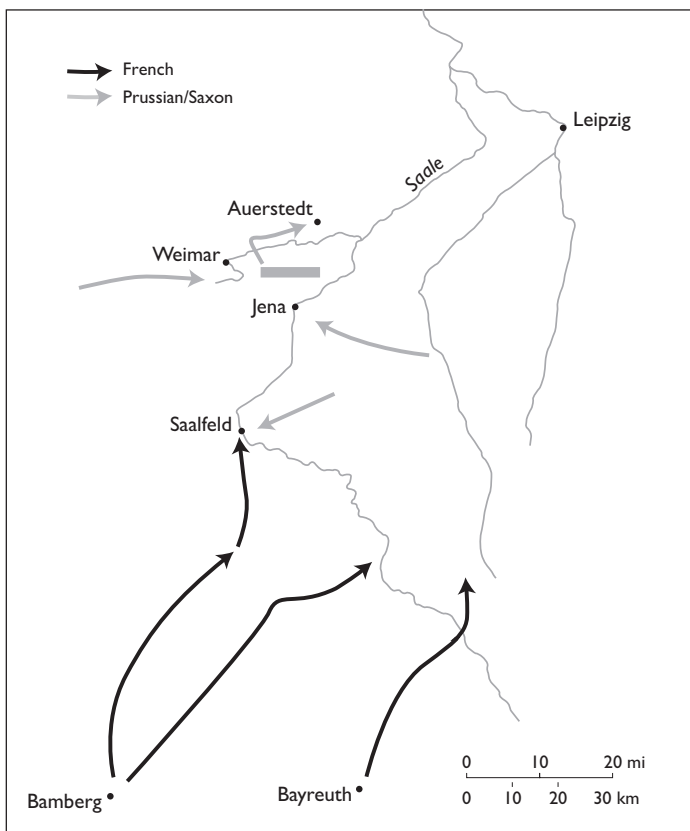
#### ■ 4 ■

In early September Napoleon, believing that war was now likely, began preparations for a rapid, sharp campaign. From Saint-Cloud he sent Berthier, his chief of staff temporarily in command in Germany, instructions for readying the army, which was being reinforced from France, and for scouting the approaches to Prussia. At the beginning of the nineteenth century, the undulating, mostly open country north of the Thuringian Forest, well suited for the maneuver of large forces, was thinly populated. Jena had six thousand inhabitants; twelve miles to the west, Weimar, thanks to Goethe a center of European culture, less than eight thousand—small communities on which several hundred thousand French and German soldiers now descended.

The Duke of Brunswick assembled the Prussian army and its Saxon contingent south of Weimar and Jena, some 140 miles south of Berlin, their effective strength of 161,000 reduced by the many units on long-range reconnaissance or

covering what were deemed key positions. Brunswick had three options: advance on the French now assembling in south-central Germany; attack them at Jena as they moved north; or withdraw to his Prussian base, and in this strong position stop them in a defensive battle—politically out of the question since it left Saxony open to the enemy. He decided to attack while the French army was still concentrating. This required a degree of speed his forces could not generate, and early in October, before he had gone far, the French began to move north (map 2). They advanced in three main columns, separated by one or two days' march: in the west the corps of Lannes and Augereau; in the center Bernadotte, Davout, the light and heavy cavalry, and Napoleon with the Guard; to the east Sault, Ney, and troops of the Confederation of the Rhine—together slightly over 160,000 men.<sup>6</sup> On paper this formation—the emperor famously compared it to a gigantic battalion square—appears simple; on the ground, maintaining the square's cohesion as it advanced, and assuring the mutual support of its parts against unpredictable enemy action, demanded experience, energetic supervision, and the instinctive search for battle.

Napoleon had only a vague idea of Brunswick's location and intentions. But in his mind he pictured an advance north that would place Berlin and Prussian communications to Russia in immediate danger. Threatening a move by a second, smaller force from the Rhine east would hint at the possibility of a two-pronged envelopment and afford some protection in the unlikely event Prussia could spare troops



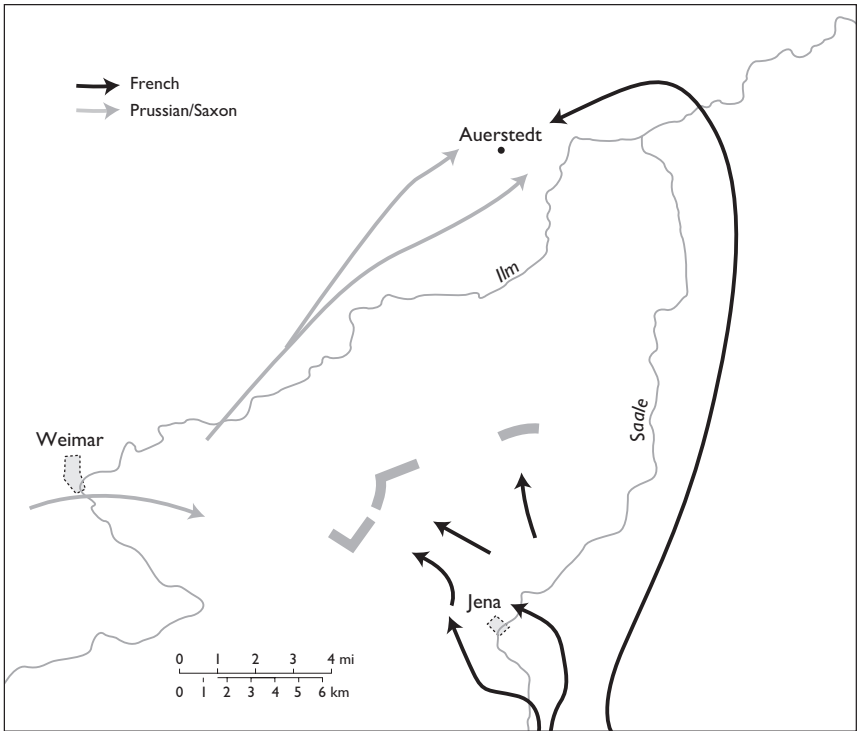
MAP 2  
Operations up to October 10

to cut the *Grande Armée's* lines of communication to France. The idea was as good as it was obvious. It was predicted by Jomini, Ney's chief of staff, and the Prussians expected it. The map showed Napoleon the importance of the Saale River flowing northwest to Saalfeld, where it bends sharply and runs north, past Jena and Magdeburg to the Elbe. From

Saalfeld he could proceed west or east of the river. On September 30, before joining the army, he ordered Berthier to prepare for a general advance, far enough east to outflank the enemy, and added: "I intend to arrive in Saalfeld before strong enemy forces reach it."<sup>7</sup> As he was writing, a Prussian advance guard of some 9,000 men under Prince Louis Ferdinand, a nephew of Frederick the Great and an unusually able, aggressive officer, was nearing the town, where on October 10 he came upon lead units of Lannes' corps.

When Brunswick learned that the chance to catch the French piecemeal was gone, he halted his advance. Bernadotte's pressure on his units farthest east prompted him to turn back toward Weimar and Jena. At Saalfeld, Louis Ferdinand, badly informed, believed he had to stand fast. Later rumors that he disobeyed orders to withdraw seem to have been false. Leading a cavalry attack to break through the French lines that threatened to encircle him, he was killed and his command was driven back with the loss of 1,700 men and 34 guns. The news of his defeat and death soon reached Jena and caused panic among some of the troops there, already suffering from the supply train's failure to keep up. Some Saxon units were left without rations for two days, and their officers began to talk of quitting their Prussian allies—administrative and disciplinary failures that were further signs of the brittleness of Brunswick's army.

By October 13 the western French column, continuing north from Saalfeld, was within sight of Jena, which Davout, eleven miles to the east, had already passed (map 3). The



MAP 3  
October 13-14

Prussians, about to be cut off from Magdeburg and Berlin, accelerated their retreat. Brunswick with the main army marched from Weimar toward Auerstedt. To guard its flank, a force under Prince Hohenlohe deployed 40,000 men on a plateau west of Jena, leaving some 15,000 under Rüchel to cover Weimar and act as reserve, too far back to support the main force quickly. At about the same time Napoleon ordered Lannes and Augereau to occupy Jena, cross the Saale,

and attack Hohenlohe's force, which he assumed to be the main Prussian army, while to the north Davout changed direction and turned southwest against the Prussian left flank. Depending on how far he had gone, Bernadotte was to support either Davout or the troops around Jena, where the emperor expected to fight. Whether from ill will or lassitude, or because he misunderstood his orders, Bernadotte did neither, and his 20,000 men had no part in the two battles fought within their hearing on the following day.

In the afternoon of the 13th, Napoleon rode through Jena, which here and there French units were already looting, to examine the terrain of the coming battle. From his study, Hegel, working on the last pages of his *Phenomenology of Spirit*, observed, as he wrote to a friend, "the emperor, this soul of the world, ride out of town. . . . Truly it is a remarkable sensation to see such an individual on horseback, raising his arm over the world and ruling it."<sup>8</sup> The odd term "soul of the world" (*Weltseele*) Hegel borrowed from the philosopher Schelling, who meant by it the force that integrates the world's organic and abstract elements, which seems far-fetched when applied to Napoleon. Possibly Hegel associated *Weltseele* with the concept of the "beautiful soul" in his *Phenomenology*, an autonomous force, acting as it must, in disregard of convention, tradition, and other peoples' interests—not a bad characterization of Napoleon, whom Hegel, in accord with his earlier enthusiasm for the reformist phase of the French Revolution, admired for his modernizing policies, not least in the empire's German satellites.

With the compound *Weltseele*, Hegel seems to identify the emperor as a life force raised to the highest power, a force that destroys but, Godlike, also creates.

At the edge of Jena, Napoleon gained only a vague impression of the plateau that rises above the town and extends some miles west. Parts were occupied by Prussian troops; but units of Lannes's corps already had a foothold on its edge. Napoleon ordered the rest of the corps and the Guard to move up the slopes after dark. Other French forces headed for Jena to add weight to the planned breakout from the bridgehead and support it with flanking operations north and south, some 55,600 men on the morning of the 14th, with another 40,300 expected by early afternoon—more than twice Hohenlohe's 40,000 men.

Before sunrise on the morning of the 14th, fog still on the ground, Napoleon gave the order to attack. Fighting began on the eastern end of the plateau, where Hohenlohe, who should have fought a rearguard action as the main army marched northeast, was drawn into a pitched battle. After three hours the Prussians had been cleared from the forward area of the plateau. The French could now spread out and advance against the Prussian second line of defense in the center and west of the plateau along the Weimar road, the link to the reserves a few miles away, which Hohenlohe had called forward at eight o'clock. Both sides developed their forces for the next major move, while groups of marksmen ranged ahead of the French lines, their preferred targets officers, whose braided hats, some with plumes, marked

them out. The embellishment of uniforms at the expense of their former functional simplicity, as the intricacies added to Prussian tactics after Frederick the Great's death, were complexities characteristic of the last stage of a style, in war as in art. Against aimed fire distinctive dress for officers proved self-destructive. A village in the center of the Prussian line was taken by Lannes, lost again, and recaptured by Ney's lead units. Soon after ten o'clock Hohenlohe advanced his infantry, drums and fifes playing, and pushed the French back. Frederician doctrine now called for a bayonet attack; instead, the battalions halted by the village, probably to await the reserves from Weimar. But the reserves did not come. Perhaps Richel started late. That he needed five hours to bring his men six miles to the battlefield may also have been caused by misplaced traditionalism. He did not hurry the troops forward but had them march in step, aligned, a witness said, "as on parade."<sup>9</sup> Clausewitz, who knew him well, later wrote that Richel trusted "Prussian troops using Frederician tactics with courage and determination to overcome anything that had emerged from the unsoldierly Revolution. General Richel," he concluded, "might have been termed a concentrated acid of pure Prussianism."<sup>10</sup>

As Hohenlohe's infantry waited in serried ranks for reinforcements, firing blind volleys against troops hidden in the village and the surrounding fields, they became helpless targets. Writing before the First World War, the British military historian Major-General F. N. Maude called the event, with some hyperbole, "one of the most extraordinary and



pitiful incidents in military history. This line of magnificent infantry . . . stood out in the open for two whole hours . . . exposed to the merciless skirmishing fire of the French, who . . . offered no mark at all for their return fire."<sup>11</sup> Eventually the front gave way. Some battalions scattered, others withdrew in good order. The French pursuit was slowed by Prussian counterattacks, but a gap opened in the line and drew in troops that until then had stood fast. Thousands fled the battlefield, most in the direction of Weimar, from which Röchel's corps was at last approaching. Röchel might have formed a defensive line behind which Hohenlohe's forces could have reorganized, but he remained in character and attacked. His men's deliberate advance was smashed by concentric fire, Röchel was wounded, and his corps merged with the crowds streaming away from the battlefield. Remnants reached Weimar, where Murat's lead squadrons, which occupied the town by early evening, scattered them.

The number of casualties on both sides can only be estimated. A few units reported precise figures. One French division of 11,000 men listed 2,645 killed and wounded—24 percent. Other French units had losses ranging from 7 to 19.5 percent. A Prussian regiment lost over a third of its 66 officers and ensigns.<sup>12</sup> Civilian deaths were few, but against the emperor's orders Weimar was looted, as Jena had been. Goethe and his household did not suffer, Hegel was told, which was not altogether true: two soldiers forced their way into Goethe's house, drank wine, rushed into his bedroom, and threatened him with bayonets or short sabers before be-

ing persuaded to leave—events Goethe summarized in his diary: “5:30 Chasseurs arrive. 7:00 o’clock fire [breaks out in the street], looting, terrible night. Our house preserved through courage and good luck.” “No one,” Hegel noted, “imagined war as we have seen it.”<sup>13</sup>

During the fighting at Jena, another battle took place eleven miles to the north at Auerstedt. The day before, Davout’s corps had turned southwest to advance against the left and rear of the forces facing Napoleon. Instead, his light cavalry unexpectedly met forward units of the main Prussian army, marching northeast, away from Jena. Intense fighting began, with both sides committing troops as they arrived. After the actions of the previous days, Davout still had 27,300 men and perhaps 44 guns with which to block Brunswick’s approximately 50,000 men and 230 guns. The fight centered on a village astride the road northeast of Auerstedt. A French attempt to outflank the Prussian attack failed, in turn the attack was brought to a halt by aimed fire from infantry hidden in the fields, against which volleys had no effect. The duke sent his quartermaster-general, Scharnhorst, to restore the situation, which, though wounded, he was able to do. Shortly afterwards, Brunswick, acting like a regimental officer, sought to bring the center forward and was mortally wounded. With Scharnhorst gone, no senior staff officer was now present to restore the unity of command, or to assist Frederick William in taking control. The Prussian attacks became uncoordinated, yet they nearly broke the French lines. As the battle turned against

the Prussians, the king ordered his nephew, Prince August, to attack the French with four battalions to give the main force time for an orderly retreat. In the course of the attack Clausewitz, then the prince's adjutant, formed some of the grenadiers into awkward skirmish lines to support the advance—a rare case of attempting to answer the French tactics in kind.<sup>14</sup> The French were too exhausted to disturb the withdrawal, except for cavalry that harried the Prussian left wing throughout the evening, pursuing some units seven miles or more beyond the battlefield.

The main army's effort to regain its link to Berlin against a force half its strength had failed. As at Jena casualties were heavy—for the French over 25 percent, more than 7,000 men killed and wounded. Prussian totals were probably somewhat less than Davout's estimate of 15,000. They also lost 3,000 prisoners and 115 guns.<sup>15</sup> Bad as this was, worse was to follow. The king, not yet aware of Hohenlohe's defeat, directed the retreat west to Weimar instead of northeast toward Prussia. Soon the troops were overrun by fleeing remnants of Hohenlohe's command. Hours were needed to sort out the many thousands scattered over miles, and shift the retreat north. Here and there a battalion or a battery was captured by the French, but they, too, needed rest before the pursuit began in earnest with Davout heading for Berlin, which he entered unopposed on the 25th. Other forces followed the Prussian retreat in a wide northwestern curve past Magdeburg, which, like other fortresses, surrendered with little or no resistance, across the Elbe to the Baltic. Some Prus-

sian units turned east toward Pomerania and East Prussia; 9,000 to 10,000 men under Blücher continued northwest to Lübeck. They were trailed by Bernadotte, who on November 5, after some hours of street fighting, took the town. Two days later Blücher surrendered his remaining forces. In the month since the war began, over half of the Prussian army had been destroyed, scattered, or taken prisoner, and much of the state was occupied. Only Silesia, East Prussia, and a part of the Baltic coast remained free. Yet, with Russian support, fighting continued in East Prussia through the next spring, until the tsar agreed to an armistice, and Prussia, truncated and burdened with heavy reparations, became a French satellite.

## ■ 5 ■

After the initial shock of the two disasters, the view spread among the survivors that even a better general than Hohenlohe, who should have fought nothing more than a rear-guard action, would have been too weak to prevail at Jena, whereas Brunswick with his superior numbers should have succeeded at Auerstedt.<sup>16</sup> Two centuries later this still seems a reasonable conclusion. But what lessons could the defeat teach the defeated? What made the check at Jena worse than it might have been? And why was the main Prussian army unable to push aside its outnumbered opponent at Auerstedt? Certainly Napoleon made the difference—but not at Auerstedt, which he never saw. Hohenlohe had been a poor commander; but senior appointments could go wrong under

any system. Nor was the Duke of Brunswick's fatal wound an avoidable flaw; it merely exemplified the randomness of combat. Other elements of the two battles, however, could be studied and corrected.

In 1806 the French were the better integrated and mobile force, against which the less flexible and slower Prussians, with their uncertain strategic concepts, would not necessarily lose but were at a disadvantage. When Brunswick rejected a strategy based on maneuver rather than battle and moved against the French before they were assembled, his army could not respond. That is not to say either that the French were invincible or that their greater mobility and more versatile use of terrain were now the only model to follow. British and Hanoverian troops had been effective against the republic and continued to be so against the empire, with relatively few adjustments in tactics or organization. They were particularly strong in the defensive; forming squares to repel cavalry charges remained an effective measure far into the nineteenth century. But the structure of the British army was more flexible than that of the Prussians, and in some respects the British *had* changed. Wellington's staff, to mention only this point, was no longer the staff of an earlier Brunswick at Minden; and in Spain and at Waterloo the British generally fought alongside allies, who—however irritating they might be—added tactical versatility. What mattered was to recognize that the enemy had adopted important new ways of fighting, and to respond to them in organization, training, tactics, and strategy, even if this required changes elsewhere as well.

After 1806 it was as important to eliminate the formalism that ruled the Prussian army as it was to alter the army's organization, strategic outlook, and operational and tactical doctrine. Too often the army was run like a platoon. Senior commanders and subordinates alike tended to obey orders literally. At the same time individual and institutional rigidity coexisted with the acceptance of social prerogatives in appointments, promotions, and discipline, which might further diminish efficiency.

To improve organization and tactics, privileges had to be reduced and behavior changed. Discipline and treatment of the rank and file, laws that exempted segments of the population from military service, the status of the technical services—all needed to be dealt with. A later chapter will address these issues. Here it is enough once more to note the interaction between social and military elements, which made any change in the army more difficult.

Even before 1806 some officers recognized these links, and many more came to see them afterwards. They were equally apparent to the great German liberal historians of the nineteenth century, preeminently Johann Gustav Droysen and Hans Delbrück, whose interpretations were ideologically sharpened by such Marxist writers as Friedrich Engels in the 1840s and Franz Mehring before the First World War. A very different conclusion was developed by officers of the historical sections of the Prussian and, after 1871, the German General Staff. Their usually very competent publications largely ignored or even denied the significance of

the French amalgamation of close and open order.<sup>17</sup> The main cause of the Prussian defeat, they declared in formulations that continued to be used in official histories down to the Third Reich, was poor leadership. Flaws in organization, doctrine, and training contributed to the outcome but meant little compared to the shortcomings of the senior generals. The most prominent representative of this view was Count Schlieffen, who as chief of the General Staff and after his retirement in 1906 wrote a number of intellectually and stylistically brilliant historical studies. His analysis of Hannibal's generalship had, as we know, a bearing on his strategic plans against France in a new war. In his essays on the war of 1806, which take up some eighty pages in his collected works, he concluded firmly that "it was not the officers' . . . lack of bravery, nor antiquated tactics that defeated the Prussians at Jena, but Napoleon's determination and energy, his vast numerical superiority, and the endless mistakes of the senior Prussian commanders."<sup>18</sup>

Schlieffen and the many who agreed with him seem not to have realized that their views placed them in opposition to their predecessors who after the defeats of 1806 rebuilt the army. Schlieffen's conclusion is particularly interesting when we compare it to his analysis of the battles in earlier pages of the same essays. To take only Hohenlohe's men facing skirmishers at Jena, Schlieffen writes: "The French infantry hidden in the fields and behind hedges and walls [of the village], directed . . . accurate fire at the Prussian and Saxon battalions, lined up like practice targets that couldn't

be missed, [and] that by the numbers, from left to right, fired one ineffective volley after another.”<sup>19</sup> We might almost be reading Major-General Maude.

Clearly, Hohenlohe should not have attacked. But once his lines faced infantry in open order, the prevailing doctrine, as Schlieffen notes, left the Prussian lines helpless. The disjunction between Schlieffen’s recognition and his contrary conclusion that ineffective tactics were not a major factor in the defeat justifies our seeking an explanation beyond his words, and we find it in the times in which he wrote—the first years of the twentieth century, when the military leadership of the German empire was coming under criticism for allowing caste considerations limit the army’s growth, by insisting, at least in Prussia, on an officer corps drawn from the upper and professional middle classes; for emphasizing ceremony over realistic training; and for exposing recruits to harsh and insulting treatment. To the assertion of the military reformers after 1806 that the army could not be modernized without changing society and state, Schlieffen a century later responded by emphasizing strategy and leadership, which took the problem out of society and politics—in much the same way, we might think, as his plan of attacking France through Belgium, which he bequeathed to the generation of 1914, ignored its likely political consequences. Schlieffen surveyed the issue from the high perch of generalship and was unwilling publicly to acknowledge the political and social implications of doctrine and drill. His intellectual rectitude suggests that this was not



a conscious decision. He may not have been aware of the extent to which ingrained beliefs affected his interpretations of the present and past—which takes us back to the basic issue, the problem of recognizing and coming to terms with the new, the acting individual's difficulty, which is matched by the difficulty historians experience, who are also never free of preconceptions and, indeed, prejudice.

More versatile tactics would not have given Prussia victory at Jena and Auerstedt, but together with less mechanical discipline and the encouragement of initiative disaster could have been prevented. A willingness to examine French practice systematically might have modified if not replaced the ultimately unquestioning trust in one's own ways. Instead, with some exceptions, the army regarded the French as an imperfect copy of itself, an assumption that made it difficult to understand the enemy's conduct so that it could be adopted or countered effectively. Schlieffen's recognition of Prussian tactical shortcomings, followed by his inability to draw the consequences, also illustrates the difficulties of the cognitive process in general—whether in Wilhelmine Germany, in the Napoleonic era, or in other conditions and at other times.