# The Mud of Verdun Falkenhayn and the Future of American Landpower

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n 21 February 1916 one of the most cataclysmic battles in the history of warfare began near the ancient fortress city of Verdun. The battle lasted nearly a year and in the one hundred square miles of contested terrain, there were approxi-

mately eight hundred thousand French and German casualties. For a time it was the focal point of the war on the Western Front, concentrating the energies of two nations, their militaries, and their strategic leadership. As a testing ground of the German High Command's theory of warfare, it proved to be the undoing of Germany's chief of staff, Gen. Erich Georg Anton Sebastian von Falkenhayn. Understanding his theory, how it drove operations, and how it ultimately determined the outcome of the battle is important for thinking

about contemporary American military strategy. As in 1916, the theory of warfare we develop to meet contemporary challenges determines whether the courage of our soldiers and the technological achievements of our nation can be effectively transformed into desirable political outcomes.

This article undertakes four tasks. First, a simple framework is created to describe a theory of warfare and its functions. Second, the development of German strategic thought from 1914 to 1916 is explored using the theoretical framework outlined in the previous section. Third, Verdun is examined in

light of this analysis, which argues that the German theory of warfare had an enormous impact on the battle's planning, conduct, and outcome. Finally, our own theory of warfare is reviewed, as it bears many similarities to that employed by the Germans at

Verdun, and therefore the battle and its outcome bear important warnings for American joint operations in the future.



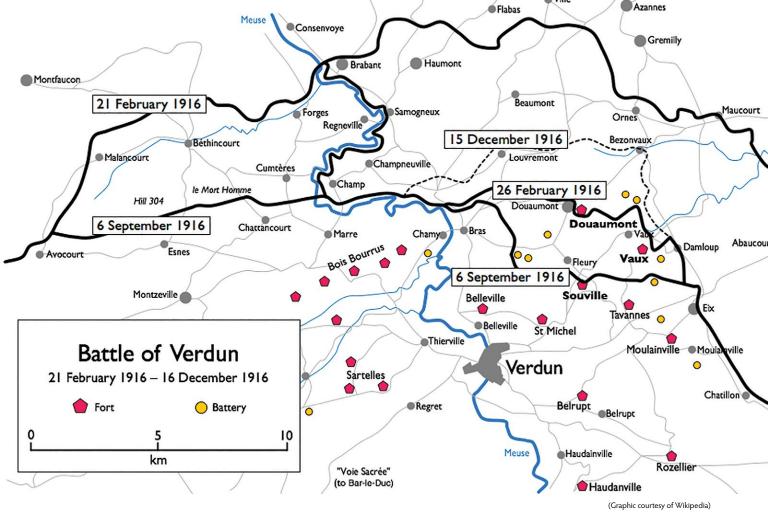
Erich von Falkenhayn, German general and minister of war, in 1913.

# What Is a Theory of Warfare?

A theory of warfare is a description of how a military intends to produce strategic outcomes. In making a decision to apply a military remedy to a strategic problem, one employs a theory of warfare to determine how and if the proposed solution will work. In the modern world, the development of grand strategy often receives theories of warfare as a given. Due to the time and expense required to develop and train a modern military, the strategic decision-makers are bound by

the military capabilities and doctrine that exist when they assume power.

A theory of warfare provides the ordering principles of a military whether made explicit or not. It is a description of the strategic environment, of what the military is, and how it applies itself against an adversary. Everything else that a military does—how it dresses, organizes itself, procures equipment, imposes discipline, generates force, sees terrain, treats captured enemies, deals with civilians, and so forth—is largely a function of how it defines and achieves success in war.



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Falkenhayn and the Evolution of German Theories of Warfare 1914–1916

In 1914, the German theory of warfare was designed to address a difficult set of givens: How does one fight a set of adversaries with greater aggregate resources on two fronts simultaneously? The Germans devised an answer that was rooted in their decisive defeat of Napoleon III's armies in 1870 during the Franco-Prussian War. In that conflict, they used audacity and decisive maneuver to trap Napoleon's forces in two large fortresses: Metz and Sedan. Napoleon, cut off in Sedan and forced to surrender after failing at his breakout attempt, sat helplessly in Berlin as his empire fell and was replaced by the Third Republic.

Applying that historical lesson to the challenges of the early twentieth century, German planners determined that they would need to defeat the French army in a single stroke, before the Russian army could mobilize and before the comparative population and industrial advantages of the Entente could be brought to bear. It would require rapid mobilization, the reduction of key

At a minimum, a theory of warfare has four essential components: strategic givens, a generated military, military effects, and a political outcome. The strategic givens describe the background conditions in which force will be generated; of particular importance is the resource context from which the military emerges and the adversaries for which it is designed. The generated military describes the "stuff" that is controlled by the military, how it is organized for use, and the uses to which it is put. These friendly efforts yield some military effect on the adversary that, according to the theory, will change the military situation in some important way. As a result of the new military situation that friendly forces have imposed, the adversary will be forced to accept a new political reality and a desired strategic outcome will occur. The four elements of a theory of warfare connect to one another, as in the following proposition: "Given a set of conditions, we will employ our formations in order to achieve some military effect on our adversaries, leading to their capitulation and a desired political end state."



strong points, and extremely mobile forces that could be transferred across robust internal lines of communication. These forces would engage the French with combined arms maneuver on a continental scale, enveloping and destroying the Western armies by cutting them off from their capitals and lines of supply.<sup>2</sup> With this accomplished, the French government would be forced to agree to peace terms, and the German army could turn its attention to the east.

Articulated in terms of the theoretical framework presented above, the 1914 German theory of warfare would read: Given the need to fight a two-front war at a numerical disadvantage, the German army will combine rapid mobilization, concentrated heavy cannon, and

strategic mobility to engage in combined arms maneuver to envelop the French army.<sup>3</sup> When the French army is cut off from its capital and its lines of communication, it will surrender, which will lead the French to conclude a separate peace.

The plan generated by this theory failed to destroy the French army. In the "Miracle on the Marne," the French Sixth Army, famously reinforced by soldiers brought to the front by Parisian taxicabs, attacked the German right wing, and ended the threat of encirclement by the attacking Germans. Over the next two years, the opposing armies created a trench line of increasing depth and complexity that stretched across Europe. Clinging to their former theories of warfare, both sides sought to



(Photo courtesy of Wikipedia, Germany)

German infantrymen with flamethrowers and hand grenades leave the trenches to assault French positions at Le Mort Homme, during the Battle of Verdun, mid-March 1916.

achieve a strategic penetration of their enemy's defenses in order to obtain victory through a single decisive battle. It quickly became apparent to all sides that such penetrations were no longer possible as attacks were launched at enormous costs that were unable to sustain more than limited gains in the face of entrenched defenders and counterattacking reserves.4 Thus, a new theory of warfare needed to be devised to account for this novel state of affairs.

On the German side, Kaiser Wilhelm II placed responsibility

for a successful conclusion of the war in the hands of his chief of staff, Falkenhayn. After dismissing Gen. Helmuth von Moltke for his failures in the initial attacks in 1914, the Kaiser made Falkenhayn head of both the German military and the ministry of war. While he was the subject of bureaucratic intrigue and divested himself of the ministerial portfolio, Falkenhayn was the architect of the German war effort that began in September 1914 and lasted until the conclusion of Verdun.

The givens that Falkenhayn faced were quite daunting: the same two-front war, superior enemy resources that had tormented his predecessors, the reality of a naval blockade that could starve Germany into submission (making a prolonged stalemate a losing proposition), and a French defensive system and suite of technologies that precluded strategic penetration. Without the ability to engage the enemy in a single decisive battle, Falkenhayn determined that he would have to fight a sequence of battles that would exhaust his enemies' ability to continue to resist.5

To achieve this outcome, Falkenhayn would organize his artillery into large, centrally managed organizations. He would then employ elaborate military deception operations and extremely tight operational security to keep his opponents off balance while he massed his forces. When ready, the German army would launch a massive barrage along a narrow front, and then advance to sufficient depth to inflict maximum damage on the defending forces. However, it would not seek a strategic breakthrough.

The purpose of these engagements was to eliminate enemy formations in battle, not to induce the collapse of resistance through deep penetration of enemy lines. This approach was first implemented in the series of battles fought on the Eastern Front in 1915, wherein the German forces destroyed the Russian army, first at Gorlice and then in Poland. The military effect was stunning. The campaign was "a series of set-piece breakthrough battles, which cost the defenders dearly each time they attempted to stand and face the advancing Austro-German force." The purpose was to grind the Russian army into nothing, leaving the enemy with a residual military capability that was incapable of offensive action. To this end, the German army inflicted "over two million casualties upon the Russians."

The capitulation mechanism envisioned by Falkenhayn differed substantially from that envisioned by German strategists of the prewar era. In 1870-1871, the German army had destroyed Napoleon's forces, besieged Paris, and obtained its desired territorial concessions and indemnities after a series of failed attempts by French forces raised in Paris to break the siege.8 However, Falkenhayn's goal was not to attack into Russia, besiege Moscow, and dictate terms. Rather, his hope was that Russia would accept a separate peace that enabled Germany to

achieve through diplomacy what it could not militarily. The Germans would return captured territory and, in exchange, Russia would leave the Entente.<sup>9</sup>

Falkenhayn had developed and tested a new theory of warfare for the German army by 1916. Given a two-front war, facing superior resources, and unable to achieve strategic penetration, the German army would organize and equip itself for violent, firepower-based surprise attacks on narrow fronts. The military effect of these attacks would inflict disproportionate casualties on defending and counterattacking forces, draining the enemy's ability to conduct military operations. Unable to resist any further, the enemy would capitulate and negotiate a limited settlement that offered more—and at a lower cost—than could be obtained militarily.

# Verdun

For Falkenhayn, Britain was Germany's bête noire. In his words, England sought "the permanent elimination of what seems to her the most dangerous rival" and "Germany can expect no mercy from this enemy, so long as he retains the slightest hope of achieving his object."10 The problem, of course, was that Germany had no way to get to Britain directly. However, without its continental allies, Britain had no means to invade Germany. Thus, the German war aim in 1916 was to split France from the Entente by making the costs of war intolerable. As Falkenhayn put it, "[i]f we succeeded in opening the eyes of her people to the fact that in a military sense they have nothing more to hope for, that breaking-point would be reached and England's best sword knocked out of her hand."11 The trick then, was to induce that sense of helplessness by getting the French army to batter itself to death.

The French salient near Verdun seemed to offer an ideal venue for this project. An artifact of the 1914 fighting, it jutted from the hills around Verdun toward the northwest, past the line of forts anchored by Fort Douaumont, and into a series of woods and low hills bisected by the Meuse River. Thus, the French position was exposed to German forces on three sides and could only be reinforced from the rear, not the flanks. Moreover, Verdun held an important place in the French imagination, and they could be expected to go to great lengths to retain this object of symbolic importance. Finally, French forces around Verdun had been thinned out to support efforts elsewhere on the

front, and so were especially susceptible to Falkenhayn's firepower-based methods.<sup>13</sup>

In keeping with his theory of warfare, Falkenhayn prepared fighting positions and massed artillery for the battle but did not move his formations to their final positions until days before the assault. He launched diversionary attacks elsewhere along the Western Front, and he kept his exact intentions secret from the senior commanders who were to lead the offensive. These initiatives were successful. Unfortunately for the Germans, severe weather delayed their attack for ten days just as the troops moved to their jumping off points, giving the French valuable intelligence about the location of the attack. The French were thus able to advance the remediation of Verdun's defense that had begun just weeks before and to begin moving reserves into place.

Due to Falkenhayn's penchant for military deception, though, it was not clear to the French high command that Verdun was the main effort until the attack began on 21 February 1916. As it had in the east, the concentrated, echeloned, and carefully allocated German artillery decimated the French defenses, firing one million shells on the first day of the battle alone.14 The overwhelming infantry assault, employing flamethrowers for the first time, routed the front lines and the reinforcements that were thrown piecemeal into the battle. And, with luck, Fort Douaumont was left virtually unmanned and was captured easily by a small German detachment. In the face of the German onslaught, the French seriously considered abandoning their positions on the east side of the Meuse River and giving up the fort system around Verdun.

However, as brutally as it began, the German advance stalled. The artillery that was to move up in support of the advancing infantry was bogged down in the wet fields that it had just plowed with its initial bombardment. The infantry came under withering shellfire from French batteries firing from reverse slopes of hills along the west bank of the Meuse, where French observers had a clear view of German positions. Local French counterattacks inflicted severe casualties, and the French line began to receive steady reinforcements along a single gravel road that came to be known as Voie Sacrée—the Sacred Way.

Falkenhayn's failure to fully communicate and receive the support of his subordinate commanders

the enemy's resolve, German analysts were forced to focus on the observable mechanism that preceded it—in this case, the destruction of enemy forces. Unfortunately, both the Germans and the French tended to overestimate the level of casualties they were inflicting.16 As a result, both sides believed that the military effect was greater, the enemy residual

military capabil-

ity much lower,

created serious difficulties. While keeping his intentions to himself was clearly a successful approach to military deception, in the operation itself the German army remained focused on the capture of Verdun as an end, not a means. Rather than fall back to more desirable defensive positions at either the rear slopes surrounding the city or the hills around Fort Douaumont, the German forces remained exposed on the plains and slopes in front of Verdun. Irrespective of setbacks, the assault continued, even as it failed to

it was expected to snap. Thus, even the most strenuous act of resistance might be the "last gasp" that preceded mass surrenders, troop rebellions, popular revolts, and a willingness by the national leadership to come to terms rather than accept further punishment. (This, incidentally, was the pattern observed in the final days of the German army in 1918, which launched a massive breakthrough offensive led by Falkenhayn's successor before collapsing, just as Falkenhayn predicted.)

In the absence of the ability to observe the state of



(Photo courtesy of Vikidia)
es to the Verdun

Transport vehicles were on the move day and night ferrying troops, armaments, and supplies to the Verdun battlefield after March 1916 along the forty-five miles of the Voie Sacrée, or Sacred Way.

achieve Falkenhayn's true ends—creating a favorable loss ratio with French forces that would cause the collapse of French will while preserving the German ability to continue operations. These ends could be achieved either by blunting French counterattacks at Verdun or by inducing them elsewhere; they could not be achieved by costly assaults from exposed positions by German forces.<sup>15</sup>

Another challenge created by Falkenhayn's theory of warfare was that the process that translated military effects on enemy forces into supposed evidence of enemy capitulation that were difficult to observe. The enemy's will was not expected to slowly and visibly bend;

and capitulation favorable to the desired political outcome much closer than it actually was.

Eventually, the German army was too attrited to maintain its position at Verdun and was forced back into the hills north of Fort Douaumont. Elsewhere, the Entente mounted offensives of their own, including an attack at the Somme, which should have been impossible had the French forces been as near to collapse as Falkenhayn had predicted. In addition, the Russian army had recovered from the previous year's losses and was advancing against Germany's Austro-Hungarian allies. Consequently, the Kaiser replaced Falkenhayn, who was unable to show results from the enormous

costs that Germany had borne at Verdun, and Gens. Hindenberg and Ludendorff took over the German war effort.

# The Power of Theory

The framework for analyzing theories of warfare presented at the beginning of this essay is a powerful lens for understanding why militaries do what they do. The theory of warfare held by the German army prior to 1914 was rooted in its 1870 victory and dictated that the goal of a military is the destruction of the enemy in a single battle, characterized by decisive maneuver, after which the winner dictates terms to the loser. In the context of Germany's

strategic givens, this resulted in the Schlieffen Plan and the attempt to envelop the entire French Army. By 1916, Falkenhayn replaced this theory with the idea that military forces destroy enemy formations in a series of surprise attacks, limited breakthroughs, and robust defenses. Once the enemy is incapable of achieving its aims militarily, space opens for a diplomatic settlement. This approach succeeded in the east during 1915, and it became the basis for the German attack on Verdun in the west.

In addition to explaining military behavior, understanding a military's theory of warfare also enables one to see where and how it might fail. At Verdun, the inability of the artillery to advance quickly over heavily shelled terrain meant the attack stalled, resulting in the Germans losing the overwhelming firepower advantage the theory demanded. Further, the need for secrecy to gain the advantages of surprise prevented clear communication of commander's intent from Falkenhayn to his subordinates. Once the attack



(Photo courtesy of Wikimedia Commons

Exhausted French troops in the central corridor of Fort Vaux, February 1916. In June 1916, Fort Vaux became the second fort to fall in the Battle of Verdun. At that time, it was virtually undefended due to the scarcity of resources.

stalled in unfavorable terrain, commanders continued to press forward with the terrain-oriented purpose of seizing Verdun as opposed to Falkenhayn's force-oriented objective of obtaining desirable loss-exchange ratios. Finally, because the theory posited an unobservable link between residual military capability and political capitulation, the German staff relied on measurements of French casualties to estimate the remaining French national will. Both their casualty estimates and their beliefs about French willpower were in error, and in fact, it was not until the massive casualities suffered in the aftermath of the 1917 French offensive that French units began to mutiny.

# **America's Theory of Warfare**

German theories of warfare are useful in understanding the nature of the German army, its employment in World War I, and, importantly, the deficiencies in the German theory of warfare that led to poor strategic decision making and a costly defeat at Verdun. With those

lessons in mind, let us turn to the American theory of war and consider its implications for the future.

The 2015 National Military Strategy divides the world into state adversaries and violent extremist organizations (VEOs). In the document, these are depicted as two ends of a spectrum, each requiring a different set of mechanisms to address them. State adversaries are subject to "deter, deny, defeat," while VEOs receive "disrupt, degrade, defeat." However, these alternative approaches are actually two expressions of the same underlying theory—a theory that looks a lot like Falkenhayn's.

The National Military Strategy states that if America or its interests are attacked by a state adversary, the American military "will respond by inflicting damage of such magnitude as to compel the adversary to cease hostilities or render it incapable of further aggression. ... Denying an adversary's goals or imposing unacceptable costs is central to achieving our objectives."<sup>18</sup>

The Joint Operating Concept suggests the American military will achieve this military effect through globally integrated operations—rapidly combining and deploying capabilities across settings and services traditionally considered discrete. In the Army Operating Concept: Win in a Complex World, 2020–2040, this is expressed through the idea of "joint combined arms operations" that "present the enemy with multiple dilemmas" to "compel enemy actions" by "putting something of value to them at risk." These dilemmas, combined with American capacity for rapid maneuver, "dictate the terms of operations and render enemies incapable of responding effectively." In the Army Operating Services traditionally considered through the idea of "joint combined arms operations" to "compel enemy actions" by "putting something of value to them at risk." These dilemmas, combined with

The Naval Operating Concept for Joint Operations supports such globally integrated operations through "sea strike" (offensive power from the sea), "sea shield" (sea-based defensive systems), and "sea basing" (logistic support for expeditionary forces). In time, these capabilities will "project increasingly decisive offensive power" and "enhance homeland defense, maintain freedom of the seas, assure access through strategic chokepoints and in the contest littorals, and project defensive power deep inland."<sup>22</sup>

The Air Force captures this idea under the aegis of "operational agility," which will "place an adversary on the 'horns of multiple dilemmas' by swiftly applying different strengths to produce multiple approaches."<sup>23</sup> This has the effect of enabling the Air Force to "leverage multidomain standoff strike capabilities whose

effective ranges exceed those of an adversary's defensive systems to engage high-value, time-critical, and highly defended targets."<sup>24</sup>

At both the joint and service levels, the U.S. military has determined that it will be compelled to face diverse threats in a resource-constrained future, and that it must engage those threats by organizing and equipping itself to operate in tailor-made, widely dispersed formations that access a broad suite of capabilities and respond to circumstances so quickly as to inflict enormous harm on enemy forces. In the face of violence, the enemy finds itself either militarily unable to achieve its aims or so brutally punished that the aims no longer seem worthwhile. The United States also intends to employ this theoretical mechanism against VEOs, albeit at a reduced level of violence. Lethal means are used to destroy VEO formations and prevent them from achieving their military aims while nonlethal support to state capacity and development makes those aims seem less worthwhile to potential recruits.

If these are the givens, the friendly efforts and the military effects postulated by our theory of war, what kind of political outcome do we seek? Implicit in the military effects that are articulated above is the idea that we alter adversary behavior but achieve neither total capitulation and occupation nor long-term resolution. Conflict will be short and sharp, and the goal of the United States is to impose costs so high as to lead an adversary to cease their undesirable behavior or live with a degraded capacity for further action. While we may use decisive maneuver as a strategic means, our *Joint Operating Concept* implies that we no longer expect it to result in a battle of annihilation that resolves a long-term security competition.

# Conclusion

In many regards, the contemporary American theory of warfare is much like Falkenhayn's. We will use surprise and agility to mass capabilities and achieve a military result that we can translate into an improvement in the political environment without achieving a decisive victory that eliminates our strategic competitors. Like Falkenhayn, we are adapting to the new strategic givens in our environment: It is simply too costly, in an era with both nuclear weapons and nearly ubiquitous durable small

arms, to invade and occupy other countries for the long-term. As a result, we will fight, we will leave, only to fight again.

Given these similarities, it is worth considering how Falkenhayn's apparently prudent, combat-tested theory of warfare led to the failure at Verdun and how we can avoid similar catastrophes in an era of limited war. The dangers are threefold: We may have made faulty assumptions about the terrain, the adversary, and ourselves.

The terrain is the danger to which we are most attuned. Considerable energy is dedicated in each of the *Operating Concepts* to describing global trends regarding urbanization, youth, computers, and military technology. However, if we do not realize that we have adopted a theory of limited war for limited aims, we may be planning to undertake operations that we have no need to actually undertake; for example, our theory may not necessitate fighting in or occupying a megacity. Prudence demands we reexamine future trends in the light of how we intend to actualize the theory of warfare we have adopted, lest, as in Verdun, our wheels get bogged down in a muddy field of our own making.

Like Falkenhayn, our theory of warfare relies on either rendering an adversary prostrate or raising the costs of further conflict to unacceptable levels. Both conditions require a clear understanding of how the adversary thinks about cost and how to manipulate those costs, and both may be hard to observe in real time. Strategic land power is one of the only mechanisms that signals U.S. intentions to continue a campaign until our aims are met.25 However, if the adversary is not completely defeated (as in Russia in 1915), then we may find ourselves conducting retrograde operations against reconstituting force—operations that we have not considered or rehearsed in our current doctrinal approach. Moreover, if we do not completely destroy the adversary military, but can only operate on the adversary's will (as in our campaigns against VEOs), we may find ourselves, like Falkenhayn, hoping that victory is still just around a corner we never turn.

Finally, just as Falkenhayn's failure to clearly communicate his intent at Verdun and its place in his overall theory of warfare led to subordinate commanders acting in contravention to the logic of that theory, so too are we in danger of failing to communicate across echelons how the U.S. military will operate in the future. The U.S. theory of warfare seems to dictate a high-speed, aggressive, destructive campaign to damage the adversary—it does not envision total defeat, occupation, social reorganization, and withdrawal. However, the latter is precisely how we talk about campaign planning and how we train staffs and tactical formations. Consequently, it will be difficult to achieve the strategic ends envisioned by the National Military Strategy and the Joint Operating Concept using the doctrinal means presently at our disposal. This disconnect is incredibly dangerous. Like Falkenhayn's lieutenants, our commanders of the future will be trained to keep pressing the attack when our policymakers expect them to withdraw to defensible positions, and in doing so, may unravel the entire raison d'etre of the operation.

It is difficult to imagine a place that better embodies the horror of modern war than Verdun. By the end of the battle, the ground was so thick with bodies that each shell stirred up new corpses even as it buried the old. Men fell to the bottom of shell holes on their way to the front and drowned trying to scrabble up the muddy sides. The infantry lay helpless in the middle of an artillery duel that lasted months. The fight for Fort Vaux unfolded in pitch-black hallways, behind barriers made of the dead and volleys of grenades. Phosgene was used for the first time. Even after almost one hundred years, Verdun stands as an enduring monument to the fundamental violence of using machines to tear human beings apart.

Given the extraordinary levels of violence, it is reasonable to ask what anyone hoped to achieve that could be worth that cost. The answer, in the eyes of Falkenhayn, was the destruction of the French army as a fighting force. If it depleted its reserves, sapped its will, and gave up on military means to recover its lost territory, Germany would be able to survive the war. However, because employment of his theory at Verdun failed to properly account for the ground, was inadequately shared with the officers under his command, and overestimated the impact the battle had on the enemy, Verdun ended in a German failure. Given the extraordinary demands future warfare in a complex world, it is imperative that we do not make the same mistakes.

# **Biography**

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# **Notes**

- 1. This is connected to a larger trend in German strategic thought, the belief in *Vernichtungsschlacht*, or "The Battle of Annihilation." For the role of this concept in pre-World War I planning, see Jehuda L. Wallach, *The Dogma of the Battle of Annihilation: The Theories of Clausewitz and Schlieffen and Their Impact on the German Conduct of the Two World Wars* (Santa Barbara: Praeger, 1986).
- 2. This concept of operations, known as the Schlieffen Plan, is well documented and widely discussed. A particularly readable text about the opening phase of the war is Barbara Tuchman, *The Guns of August* (New York: Presidio, 1962). The authoritative text on the military aspects of the campaign was first published in 1935 and has been rereleased under a new imprint: Sewell Tyng, *The Campaign of the Marne* (1935; repr., Yardley: Westholme Publishing, 2007).
- 3. Tyng, *Marne*, 25–33. Chapter 3 offers comparisons of the French and German armies and an excellent overview of their organization, equipment, and operations.
- 4. While this essay limits itself to the German side of the conflict, for an excellent account of French strategic evolution, see Robert A. Doughty, *Pyrrhic Victory: French Strategy and Operations in the Great War* (Cambridge, MA: Harvard University Press, 2005).
- 5. Robert T. Foley, German Strategy and the Path to Verdun (Cambridge, UK: Cambridge University Press, 2005). The roots of this "exhaustion strategy," or ermattungsstrategie, is the subject of chapter 2 of Foley's excellent account of Falkenhayn and his place in the larger debates among prewar German strategists.
  - 6. Ibid., 140.
  - 7. Ibid., 153.
- 8. Alistair Horne, The Fall of Paris: The Siege and the Commune 1870–71 (1965; repr., London: Penguin, 2007).
  - 9. Foley, German Strategy, 146.
- 10. Erich von Falkenhayn, The German General Staff and Its Decisions, 1914–1916 (1920; repr., London: Forgotten Books, 2012), 240.
- 11. Ibid., 249. While his memoirs are authentic, the preceding two passages are drawn from a letter he says he delivered to the Kaiser around Christmas 1915. No other evidence of this document has emerged, and while his memoirs likely reflect his thinking at the time, historians now believe the Christmas Memorandum to be a literary device. See Foley, German Strategy, 188.

- 12. Paul Jankowski, Verdun: The Longest Battle of the Great War (Oxford, UK: Oxford University Press, 2014), 14–15. Jankowski, a revisionist historian, offers an alternative view, arguing that Verdun only became especially important symbolically after the battle and was not particularly important beforehand.
- 13. Alistair Horne, *The Price of Glory: Verdun 1916* (1962; repr., London: Penguin, 1993); Jankowski, *Verdun*, 41. While his account of Falkenhayn has been superseded by later scholarship based on the release of German records captured by the Soviets, Horne's account of French preparations and behavior around Verdun remains eminently readable.
  - 14. Foley, German Strategy, 10.
- 15. Jankowski, *Verdun*, 41. There remains scholarly debate about what, precisely, Falkenhayn intended to happen, and there is certainty that there was debate among his subordinates.
  - 16. Foley, German Strategy, 235-36.
- 17. U.S. Joint Chiefs of Staff (JCOS), The National Military Strategy of the United States of America 2015 (June 2015), 6, accessed 12 April 2016, <a href="http://www.jcs.mil/Portals/36/Documents/Publications/National\_Military\_Strategy\_2015.pdf">http://www.jcs.mil/Portals/36/Documents/Publications/National\_Military\_Strategy\_2015.pdf</a>.
  - 18. JCOS, 7 and 12. This language also appears on page 11.
- 19. JCOS, Capstone Concept for Joint Operations: Joint Force 2020 (10 September 2012), 4, accessed 12 April 2016, <a href="http://www.dtic.mil/doctrine/concepts/ccjo\_jointforce2020.pdf">http://www.dtic.mil/doctrine/concepts/ccjo\_jointforce2020.pdf</a>.
- 20. U.S. Army Training and Doctrine Command (TRADOC) Pamphlet 525-3-1, *The U.S. Army Operating Concept: Win¬ in a Complex World, 2020–2040* (Fort Eustis, VA: TRADOC, 31 October 2014), iii and 18, accessed 12 April 2016, <a href="http://www.tradoc.army.mil/tpubs/pams/tp525-3-1.pdf">http://www.tradoc.army.mil/tpubs/pams/tp525-3-1.pdf</a>.
  - 21. lbid.
- 22. U.S. Navy, *Navy Operating Concept for Joint Operations* (May 2003), 13–14, accessed 20 April 2016, <a href="http://www.dtic.mil/docs/citations/ADA524820">http://www.dtic.mil/docs/citations/ADA524820</a>.
- 23. U.S. Air Force, Air Force Future Operating Concept: A View of the Air Force in 2035 (September 2015), 7, accessed 12 April 2016, http://www.af.mil/Portals/1/images/airpower/AFFOC.pdf.
  - 24. Ibid., 31.
- 25. Dianne Chamberlain, Cheap Threats: Why the United States Struggles to Coerce Weak States (Washington, DC: Georgetown University Press, 2016).