

2021

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Recommended Citation

Rafuse, Ethan S. (2021) "One Approach, Two Results—The French Army, the U.S. Marines, and the Frontal Assault during the World Wars," *Naval War College Review*: Vol. 74 : No. 2 , Article 8.

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ONE APPROACH, TWO RESULTS

The French Army, the U.S. Marines, and the Frontal Assault during the World Wars

Ethan S. Rafuse

In the past few decades, students of military affairs have looked repeatedly to the first half of the twentieth century, and the efforts of military organizations to adapt to the changing tools of war during and between the two world wars, to understand why some military organizations are successful on the battlefield and others are not. It is safe to say that few, if any, military organizations have fared worse at the hands of students of the interwar period than the French army. This is not surprising. The disastrous 1940 campaign seemed to offer a compelling verdict on the contrasting approaches that French military institutions and their German counterparts took to develop uses for the military tools that were introduced in the previous war. In contrast, the U.S. Marine Corps traditionally has received high marks for its efforts during the interwar period. This, too, is not surprising, as its solution to the problem of how to make a successful opposed amphibious landing was a key contribution to the U.S. victory over imperial Japan.¹

What follows is another look at the innovation efforts that the French army and the U.S. Marines made during the interwar period and the methods they brought to the World War II battlefield and the particular problems they faced.

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There is little doubt that there were significant differences both in their organizational approaches to these problems and in the results those approaches achieved on the battlefield. To be sure, the starting point for assessing any military organization must be its effectiveness on the battlefield. Yet closer examination of the problems each faced and the

Naval War College Review, Spring 2021, Vol. 74, No. 2

answers they developed reveals more in common between the French army and the Marines than the operational results they achieved suggest, and offers a compelling reminder when studying the past to heed Sir Michael Howard's famous admonition to do so in width, depth, and context.² It is not the intent of this article either to deny the Marines their well-merited laurels by association with the defeated French army, or to ignore the serious issues with the latter that make it a useful subject for considering undesirable qualities in a military organization. Still, there is a danger that making battlefield outcomes the sole determinant of how we assess military organizations can lead to insufficient appreciation of context, contingency, and detail, and thus an incomplete understanding.

BREAKING THROUGH THE TRENCHES

Of course, the military organizations that prepared for and fought the Second World War did so with the Great War's oppressively heavy shadow cast over nearly everything they did. The problems illustrated by the tactical and operational stalemate that prevailed on the western front for most of the war, and its eventual resolution, weighed most heavily. When the western front consolidated at the end of the dramatic maneuvers of 1914, the French army and its British and Belgian allies had fended off defeat but faced what proved to be a formidable task—that is, driving the German army off the soil of France and Belgium before the strain and hardship of their societies' near-complete mobilization for the war became unsustainable.³ With the German flanks effectively secured by the mountainous Swiss border and the English Channel, turning movements and envelopments were unfeasible. Consequently, the French had to figure out how to conduct successful frontal assaults on fortified enemy positions that would create a tactical penetration deep and broad enough to be exploited operationally. The means available to French commanders were effectively limited to artillery and infantry; new technologies such as the tank and airplane were too immature to play more than a supporting role. This simplified their operational problem considerably and made the solution rather obvious: use artillery to smash the enemy's lines, then send foot soldiers "over the top" to cross the deadly ground and attack the enemy's lines. They hoped that the artillery bombardment would weaken the defenders sufficiently that the attackers could find a hole in the line or, with effort, create one that was large enough for a complete penetration to be accomplished, which would set the stage for a full tactical and operational exploitation.⁴

If the concept was simple enough, successful execution was another thing altogether. The problem was not that artillery was incapable of creating conditions for a tactical penetration. From the time the method first was applied, the French and their allies demonstrated that, while crossing no-man's-land was costly, afterward infantry usually could find the enemy sufficiently weakened

by the preliminary bombardment to achieve a tactical penetration—a “break-in” that gave the Allies possession of part of the enemy line. The problem was sustaining the assault’s momentum to turn the penetration into a breakthrough. In essence, once a penetration had been created, the two sides found themselves in a race. With the assault force exhausted and bloodied by the effort of creating the penetration, the tactical commander then had to send reserves up in the right place to exploit the breach before the tactical defender could bring up his own reserves to contain it and launch a counterattack. It was exceedingly difficult for an attacker on the western front to win this race. It invariably took more time for reports of a successful penetration to reach the headquarters of the attacking commander than it did to reach the defender’s, who also would have been alerted by the attacker’s bombardments to begin moving up reserves. Any penetration site was necessarily in range of the defender’s artillery and the high density of manpower and infrastructure on the western front meant that the attacker’s own artillery support was less effective the farther he advanced. The defender’s rear area also was usually better ground over which to move reserve forces than was the artillery-chewed expanse of no-man’s-land that attacking reserves had to cross.⁵ The French and their allies made notable improvements and refinements to the type and employment of their artillery, such as the development of the rolling barrage, that forced the Germans to make fundamental changes to their defensive tactics; however, they remained unable to turn tactical penetrations into tactical breakthroughs that could be exploited to achieve operational success.⁶

By 1916, a growing number of commanders concluded that the problems associated with the frontal assault in the face of modern firepower meant that efforts to achieve an operational breakthrough were not realistic. Even French commander Joseph Joffre, who had been an enthusiastic supporter of offensive operations early on, accepted the merit of this argument, albeit reluctantly.⁷ Improvements in artillery and infantry techniques kindled hopes for a breakthrough after tactical successes at the Somme and Verdun in 1916. However, the Germans then developed the defense-in-depth concept in response, negating those offensive innovations and leading to the catastrophe of the Allies’ Nivelle offensive in April 1917. After that failure, Philippe Pétain, who had been skeptical of pursuing breakthroughs since the beginning of the war, became head of the French army and brought, in the words of historian Douglas Porch, “a sobering note of reality to . . . operations.”⁸

Pétain advocated what some referred to as a “bite and hold” approach. Heavy artillery was employed as before, leveraging refinements in both tools and techniques, to saturate and destroy as much of the enemy front line as possible. Infantry then went over the top, with a rolling barrage preceding its advance. This necessitated a tightly planned, phased advance over a broad front, and

the discretion granted to lower-level commanders was circumscribed tightly to ensure that troop movement was coordinated with the barrage. This enabled enough men to reach the enemy lines to achieve a tactical penetration. Unlike before, though, the idea of exploitation was eschewed, so once the enemy lines were seized there was no “race” to expand the penetration or bring up reserves. In line with plans developed by higher headquarters, the infantry then would halt and, instead of attempting to turn the penetration into a breakthrough, would stay under the cover of its own artillery and repel enemy counterattacks. The infantry would consolidate its new position while heavy artillery was moved forward. “The artillery conquers the positions,” Pétain famously explained, “the infantry occupies them.”⁹

The effectiveness of these tactics was hard to dispute. By the end of 1916, improvements in heavy artillery enabled attackers to inflict unsustainable destruction on defending troops packed in forward defensive lines. This led to significant reductions in the number of troops holding forward defensive positions, which made tactical penetrations all the more achievable. Under Pétain, the French successfully resumed offensive operations in late 1917, providing a much-needed boost to morale in the French ranks following the mutinies that broke out after the failed Nivelle offensive.¹⁰ In 1918, these methods were incorporated into a broader offensive approach by conducting a series of limited and methodical operations at one point along the German line before moving on to another. While tanks and aircraft played a role in these operations, it was improvements in the efficiency and effectiveness of artillery, and its liberal use, that were “the true artisan of victory,” in Hew Strachan’s words. In the process of methodically pushing the enemy back—while also conserving French manpower—these operations imposed enough casualties on an exhausted German army that its leaders had no choice but to throw in the towel in November 1918. Thus, the French were able to claim victory at the end of the war, not through the dramatic blows on the battlefield envisioned at its start, but by exhausting the enemy through the accumulation of numerous limited tactical gains over time.¹¹

INTERWAR DOCTRINE DEVELOPMENT IN FRANCE AND GERMANY

Despite their success in World War I, there were significant issues with France’s methodical tactics. First, these methods do not produce quick, dramatic, or decisive battlefield results. Consequently, they could not be employed by a belligerent whose strategic and operational situation required a quick battlefield decision. The differences in the broader strategic contexts in which France and Germany found themselves thus drove divergent doctrine development models in the lead-up to the next war.

France Commits to the Bataille Conduit

As Robert A. Doughty and other historians have chronicled, France's methods also contained the seeds of a problematic military culture and a faulty approach to innovation during the interwar period that translated into disaster for the French in 1940. During the 1920s, French doctrine anchored itself to "the bataille conduit, or methodical battle," which "resembled the methods used in World War I, but it represented an intensification of those methods," "a step-by-step battle in which units obediently moved between phase lines and adhered to strictly scheduled timetables. . . . [A]rtillery provided the momentum and the rhythm for the attack." Infantry was expected to make only relatively shallow advances "to remain under the umbrella of artillery protection."¹² Whatever the merits of these tactics, there is no dispute that they had significant ramifications for the culture of the army that adopted them. By their nature, they required a very top-down approach to tactical planning and battlefield execution, as the employment of infantry and artillery had to be tightly coordinated, and plans had to be followed as close to the letter as possible, leaving little room for lower-level initiative.¹³

In service of this doctrine, French leaders systematically purged the aggressive and audacious spirit of Napoléon from the minds of their officers in favor of "rigid centralization and strict obedience," and thereby undermined their ability to respond effectively to unexpected developments on the battlefield.¹⁴ It also led the French to take flawed approaches to the study of World War I and the possible employment of armor. Focusing almost exclusively on operations that validated the methodical battle doctrine, they failed to recognize new possibilities suggested by the war and improvements in air and armor technology. They tied tanks and infantry to the use of firepower rather than empowering them to exploit tactical penetrations dynamically and aggressively on their own. Furthermore, the hierarchical, top-down culture fostered by the methodical battle doctrine had the effect of discouraging open discussion of new ideas and concepts, especially in the country's institutions of professional military education, which became little more than inculcators of doctrine. This precluded the sort of honest, realistic consideration of doctrine and organizational agility that might have enabled the French army to recognize and address problems in its planning and execution of operations in 1940 more quickly. "France committed the glaring mistake," Doughty concludes, "of trying to impose her way of war on the enemy without having suitable recourse should this attempt fail. . . . The notion of a carefully controlled and tightly centralized battle belonged to another era."¹⁵

Germany's Dynamic Response

Further damaging "bite and hold" tactics in the eyes of historians is the contrasting and more dramatic approach that the German army took to tactical innovation

during and after World War I. By late 1917, German resources had been exhausted to the point that it was impractical for army leaders to follow the French approach of relying on large amounts of heavy artillery and methodical operations. Moreover, the need for a dramatic victory before American matériel and manpower irreversibly tipped the scales against them on the western front meant that any approach that could not achieve a tactical and operational breakthrough was inadequate to Germany's strategic needs. The result of German efforts to address the problem was the infiltration tactics of 1918, which also laid the foundation for the army's doctrinal and organizational development during the interwar period and were directly connected to the victory of 1940.¹⁶

The fundamental issue, as noted earlier, was how to employ artillery and infantry to enable the attacker not just to achieve a penetration but to win the race between his effort to exploit and the defender's effort to contain that tactical penetration. Instead of following the French massed artillery and infantry approach to wear down the enemy, the Germans applied speed and maneuver to the problem. Rather than pursuing destruction of enemy positions through heavy bombardments, German doctrine used short, concentrated bombardments with the objective of neutralizing defenders through disruption. This would be followed quickly by probes to identify weak points in the enemy defenses. *Sturmtruppen* (storm trooper—also called *Stoßtruppen*) assault units then would come up to maintain momentum against the assault's preeminent objective and bypass strongpoints and pockets of resistance, push deep into the enemy position, and attack headquarters and rear areas. Sustaining the momentum of the advance and focusing more on the depth of attack than on maintaining a continuous line, in combination with the high tempo of the German advance, frustrated the ability of defenders to bring up reserves to contain penetrations by disrupting command and control. With command broken down and Germans in their rear, bypassed positions would be taken not through attritional battles but by the defenders concluding that further resistance was pointless and giving up the fight.¹⁷ In contrast with French methods, in which the artillery dictated the pace of advance, which produced an "entire system . . . designed to be propelled forward by pressure from above, rather than by being pulled from below," the German tactical system dictated that the pace and direction of the battle be determined by the efforts of the frontline infantry, with junior officers encouraged, indeed required, to exercise tactical initiative aggressively.¹⁸

The results of these methods when applied in the initial German offensives of 1918 were impressive. With remarkable speed, German attacks achieved dramatic penetrations of the enemy line and reached depths in Allied positions that had not been seen on the western front since the beginning of the war. Unfortunately for the Germans, while they had figured out how to break through the enemy

position fast enough to win the tactical race between the offense and defense, this simply meant that the race then shifted to the operational level, where they were less prepared. The Germans did not have the means to win this race, as the Allies were able to slow down and contain breakthroughs owing to their ability to bring up operational reserves and to the exhaustion of the German attack troops. The German effort was undermined further by the high command's desire to maximize lower-level initiative at the expense of adequate planning to connect tactical successes to a larger operational framework.¹⁹

Although they ultimately failed to achieve a favorable operational or strategic decision in World War I, imperial Germany's tactics have won praise from students of military affairs, who believe they seeded Germany's successful interwar innovation, which produced decisive victories in the opening campaigns of World War II and sustained high combat effectiveness throughout the war. The fact that they offered a qualitative approach and solution to the problem, in contrast to the more quantitative French methods, also contributed to their appeal to students of war, who generally have viewed strategies of attrition negatively, especially those in the United States who faced the challenge of countering Soviet mass on potential Cold War battlefields.²⁰

Moreover, just as appealing as the tactical methods themselves is the process that the Germans used to approach the problem and how it shaped, and was shaped by, German military culture. In the process of developing doctrine during the war and continuing to develop it afterward, the Germans demonstrated a salutary and impressive openness to ideas (even those that were not their own, as illustrated by their debt to concepts proposed by French junior officer André Laffargue). The German approach was characterized by a willingness to listen to frontline commanders, engage them in the process of doctrinal development, and encourage them to exercise aggressiveness and initiative on the battlefield. Thus, the Germany army went into the interwar period with a dynamic approach to doctrine, as well as an offensive mind-set that translated into a commitment to maneuver and the ruthless exploitation of battlefield opportunities, in contrast to the French, whom one scholar described as "frozen in time somewhere between Verdun and the autumn offensive of 1918." Altogether, the German army's aggressive mind-set, in Williamson Murray's words, "provided a solid framework for thinking" about the problems of the modern battlefield. This translated into the doctrine and organizational ethos that proved so deadly in 1939 and 1940.²¹ Although infiltration tactics did not deliver operational or strategic victory in 1918, the methods and the process by which the Germans developed and built on them during the interwar period and the dramatic results they produced on the battlefield have been lauded as manifestations of a "genius for war" that contrasted conspicuously with their more insular and hidebound French counterparts.²²

THE AMPHIBIOUS PROBLEM AGAINST JAPAN

Western Europe was not the only place where the first half of the twentieth century saw militaries confronting the challenge of figuring out how to use the modern tools of industrial warfare effectively. As the United States contemplated the prospect of a military contest for the western Pacific—something strategists had been doing for decades by the time Japan attacked Pearl Harbor in December 1941—it was clear that it faced compelling and challenging problems. For a United States that sought to restrain and contain Japanese power in Asia, it was a question of how to project combat power across the world's largest ocean. Of particular concern in this context was the task of securing possession of small islands between Hawaii and mainland Asia so they could be used to support a drive across the Pacific by the U.S. Navy's capital ships. The U.S. Marine Corps, partly as an act of organizational self-preservation, took up the challenge of figuring out a solution to one of the critical military problems confronting American strategists: how to conduct successful amphibious attacks that would enable American forces to wrest control of those islands from the Japanese.

Few challenges appeared as formidable in the interwar period as making an opposed amphibious landing. If conducting a successful frontal assault on continental Europe seemed daunting in light of the experience of World War I, an opposed landing in the face of modern firepower to seize the small islands that the United States would need to defeat Japan seemed so hazardous that few were eager to take up the challenge. Although the first few decades of the twentieth century saw Western militaries conduct several successful amphibious operations, these largely validated, in historian Allan R. Millett's words, "a similar basic concept for successful landings: land where there is no opposition from ground forces." Meanwhile, the miserable, unsuccessful effort of the British and French at Gallipoli in 1915 cast a dark shadow over the question of how to conduct amphibious operations against a beach defended by a belligerent equipped with modern firepower.²³

However, the operational and strategic objective that amphibious operations were to serve—securing western Pacific islands to support the U.S. Navy's offensive drive toward Japan—was critical to American prospects for success. Of particular interest were islands that could serve as air bases to support the U.S. Navy's capital ships against the Imperial Japanese Navy in the course of a grand naval offensive across the western Pacific toward Japan—lands that otherwise the Japanese would use to support their resistance against the American advance.²⁴ The problem, of course, was that, while there were many islands between Hawaii and Japan, the need for islands that could support airfields narrowed the geographic options significantly, and it could be assumed safely that islands the American planners identified as operationally desirable also would be obvious to Japanese planners. Thus, the possibility that there would be islands of strategic

and operational value that remained unoccupied appeared slim. Moreover, many of these islands would be small enough, and offer so few practicable landing sites, that the most effective approach to amphibious operations—namely, landing where there will be no resistance—would not be available.

There were, to be sure, many problems unique to the opposed amphibious assault. “Moving men and equipment across open water in the face of carefully calculated fire is an extremely dangerous proposition,” historian Jerold E. Brown laconically notes. “Furthermore, the defender has the advantage of time and space . . . and he often has time to prepare his defenses.”²⁵ On top of this were the headaches associated with coordinating land, sea, and air elements. In addition, since the United States would be conducting these operations as part of a massive strategic and operational exercise in power projection across the world’s greatest ocean, there were a host of logistical issues that were incomparable in both scale and character to what those charged with developing doctrine for the battlefields of Europe faced.

Given these difficulties, it is not surprising that, in contrast to the travails of the French army, the story of how the U.S. Marine Corps solved the problems of opposed amphibious operations in the Pacific often has been cited by students of innovation as a great example of institutional effectiveness. In line with the concept for a war with Japan laid out in War Plan ORANGE, the visionary Marine commandant John A. Lejeune entrusted a young, somewhat eccentric, lieutenant colonel named Earl “Pete” Ellis with the task of studying the theater of operations. Ellis’s observations, laid out in Operation Plan 712 along with careful study of maneuvers conducted during the 1920s, then were incorporated into an effort to think critically about and develop doctrine—in contrast to the French schools, where the mission was to inculcate doctrine and “school solutions”—in which vital work was done by students and faculty at the Marine Corps schools at Quantico. Throughout, the Marines demonstrated the sort of commitment to rigorous professional military education; to entrusting critical tasks to junior officers such as Ellis and Majors Charles Barrett and DeWitt Peck; and to open, honest discussion of problems that was absent in the French army. The product of these efforts—more remarkable because the Marines simultaneously were analyzing their ongoing operations in the “Banana Wars,” producing the *Small Wars Manual*, which remains an invaluable work on the subject to this day—was the 1934 *Tentative Manual for Landing Operations*.²⁶

This document, officially adopted as doctrine by the U.S. Navy and distributed as Fleet Training Publication 167 (FTP 167) in 1938, laid out the conceptual framework for addressing the problems of amphibious landings. After continuing to refine the implementation of its concepts using the results of landing exercises, the Marine Corps took its amphibious doctrine to war. The first tests, at Guadalcanal and Tarawa in 1942 and 1943, although bloodier and tougher than

initially expected, validated the doctrine. They also validated the organizational approach and culture that produced that doctrine, especially the Marines' process of continual refinement as they conducted the grueling offensives that put American forces into position to bring about the total defeat of imperial Japan.²⁷

Contributing to the contrast between history's glowing judgment of the Marines and that of the French army is that, while there were many differences in the specifics (French commanders did not have to devote attention to the merits of rubber landing craft or the construction of wharves, for instance), the fundamental problem the Marine Corps faced and addressed so successfully was in essence the same as the one the French army faced in Europe. Like the French and the Germans in World War I and during the interwar period, the Marines had to figure out how to combine fire and maneuver successfully to assault defenders equipped with modern firepower. The Marines' success, of course, demonstrates the methods and qualities we associate with military organizations that innovate effectively, so one must think that surely their solution more closely followed the Germans' aggressive maneuver doctrine than the French preference for mass, right?

Wrong. If the Marines demonstrated a more commendable (and Germanic) organizational ethos in the process of innovation, their solution to the amphibious assault problem was in fact more Gallic than Teutonic. Like the French doctrine of methodical battle, Marine doctrine placed heavy emphasis on firepower. In line with historical experience (not to mention common sense), FTP 167 posited that, in light of the difficulties associated with landings, "superiority of force, particularly at the point of landing, is essential to success," and that consequently "[b]eaches strongly organized for defense should be avoided if possible." In the event that an opposed landing could not be avoided, once an island had been selected for assault the U.S. Navy would endeavor to isolate it, to prevent the enemy from reinforcing it before, during, or in the aftermath of the assault. The "attacking force," consisting of "two elements of major importance, namely—The landing force [and] Naval gunfire," then would go to work.²⁸

First, naval gunfire would pound the island. In its treatment of the effect sought, FTP 167 made a distinction between neutralization ("by short bursts of fire of great density to secure the advantage and effect of shock and surprise") and destruction. The manual expressed a decided preference for the former, declaring, "Destruction should only be attempted under favorable conditions." Once firepower had done its job, Marine infantry would make a frontal assault to break through the enemy's defenses—not on a narrow front, with an eye toward infiltration and deep penetration, as in the German system, but on "a wide front in order to increase the speed of the landing," avoid exposed flanks, and facilitate coordination with suppressive fire support ahead of the advancing infantry. Marine infantry would seize the enemy frontline positions that had been neutralized

by fire and then push far enough inland to secure the beach, while staying within the range of naval fire support. FTP 167 advised that “initial assault echelons are particularly apt to become disorganized during and immediately after the landing, and they cannot be expected to make deep penetrations against strong opposition,” which made it “often desirable . . . to have leading assault units secure a limited objective.”²⁹ On a small enough island, such as those that would be encountered initially in the drive across the Pacific from Pearl Harbor, anything beyond that would be unnecessary.

The Marines then would consolidate the positions they had gained, fighting off any enemy counterattacks attempting to dislodge them. Then, once the island or islands capable of supporting airfields were secured, the Navy would continue its westward advance to the next island chain. This way, U.S. forces would work their way methodically toward victory much as the Allies had on the western front in 1918. They would leverage superior resources to attack and seize one island chain, then another, attriting the Japanese armed forces as part of a larger strategy that, in cooperation with allies, also cut Japanese access to resources. Then, if the decisive naval engagement envisioned in both Japan’s “interception-attrition” strategy and Plan ORANGE took place, the Japanese would be at a grave disadvantage. If not, the Japanese war effort in the western Pacific would collapse from the exhaustion of matériel and manpower.³⁰

Of course, it is a truism that no plan, no matter how commendable the effort to produce it may be, survives first contact with the enemy, necessitating modification of the initial assumptions and plans. This was certainly the case for the Marines and their doctrine for an opposed amphibious landing, which first was tested truly in November 1943 in Operation GALVANIC, targeting the Gilbert Islands. Planners identified wresting possession of Betio Island, the main island in the Tarawa atoll, from its five thousand Japanese defenders as the most important objective. For the most part, the Marines’ doctrine and the process that developed it were proved to be generally sound; however, the operation also demonstrated that they needed some modifications—ones that pushed Marine doctrine further in a Gallic direction.

As noted, the fire-support doctrine in FTP 167 preferred neutralization over destruction. Yet, as one Marine who landed at Tarawa later explained to an interviewer for the *World at War* series, this was not what the landing teams were told to expect. “They thought they would level the island and completely demolish everything,” he recalled, “[t]hat there wouldn’t be a living soul on the island.” Unfortunately, the Marines who made the initial assault found that, contrary to the boasts of some naval officers, this was not the case at all.³¹ Setting aside the stated preference in FTP 167 for neutralization over destruction, Colonel Merritt Edson, the Second Marine Division chief of staff, and Lieutenant Colonel David

Shoup, the commander of the initial assault force, developed a plan in which the assault on Betio would be preceded by several days of preparatory air and naval bombardment. Naval planners, however—afraid of leaving their vessels exposed in the event of an appearance by a significant Japanese naval force (as had happened in August 1942 at Guadalcanal, producing an embarrassing defeat at Savo Island)—refused to provide it. Instead, although there would be air and naval strikes for a few days before the actual attack, for the real work on the day of the assault warships would provide only a three-hour bombardment.³²

Those who presumed that the use of artillery in a short bombardment for “neutralization,” along the lines of the German tactic, would be sufficient were badly mistaken.³³ As the Marines began their assault, they were greeted with ferocious Japanese artillery and small-arms fire. The ordeal was made worse by the inability of the Higgins boats that many were using for the assault to cross the reef in front of the landing beaches, which compelled Marines to wade forward about six hundred yards under fire. Ultimately, enough Marines were able to reach shore to win the battle and secure the island—one that was not even three miles long and at no point was more than eight hundred yards across. However, even with a three-to-one manpower advantage it took American forces three days of brutal combat to eliminate Japanese resistance and claim victory—at a cost of over one thousand dead and more than two thousand wounded.³⁴ Not surprisingly, the heavy casualties suffered and the fact that the fight for Betio had been much, much tougher than expected provoked considerable discussion among Marine and Navy officers about how to improve their performance.³⁵

“[N]ot the least” of the lessons learned, historians Benis Frank and Henry Shaw declare, “was the importance of naval gunfire.” Marine planners who had chafed at the limits the Navy had imposed on naval gunfire prior to the assault on Betio had been proved correct, and in the future it was accepted that “the preliminary bombardment had to be heavier and sustained for a longer period.”³⁶ If the difficulties at Tarawa were not to recur in future assaults and casualties were to be kept to an acceptable level, a few hours’ bombardment with an eye toward neutralization was not enough. “One of the great lessons learned about naval gunfire,” James Stockman observes in a 1947 study for the Marine Corps Historical Section, “was the need for destruction rather than neutralization. . . . [P]reparatory bombardment and shelling to be delivered on enemy-defended islands similar to Betio would have to be increased in duration and weight, all of this with an eye toward . . . total destruction.” After Tarawa, writes Joseph H. Alexander, perhaps the foremost modern scholar of Marine amphibious operations in the Pacific War, “[t]he duration and effectiveness of preliminary shelling improved . . . but the Marines always wanted more.”³⁷ That this lesson had been absorbed fully would be evident a few months later. When the Marines

conducted Operation FLINTLOCK in the Marshall Islands in early 1944, bombardments would be longer (two days for the landing at Kwajalein Atoll, as compared with three hours at Tarawa) and heavier, with the effect that the landings were accomplished handily and the operation's objectives attained much quicker than initial plans had anticipated.³⁸

SIMILAR CONCEPTS, DIFFERENT RESULTS

Why were the Marines so “French” in their approach to assault tactics? The answer is, obviously, the similarity of the specific problems they faced. Williamson Murray identifies *specificity*—by which he means “the presence of a specific military problem the solution of which offered significant advantages to furthering the achievement of national strategy”—as one of the critical factors that contributed to success or failure in innovation during the interwar period.³⁹ First, like the French in their approach to the German problem, the U.S. Marine Corps did not have a compelling need to bring about a quick strategic decision in its contest with the Japanese. Both the French and the Marines faced an enemy that was inferior in resources—at least if the French fought as part of a coalition, which they correctly presumed would be the case. The presumption of matériel superiority would translate naturally into the ability to bring heavy firepower to the battlefield. In addition, unlike the Germans, for the French and the U.S. Marines a successful frontal assault was a tactically sufficient and satisfactory accomplishment, whereas the Germans needed tactical assaults to set the stage for operational exploitation.⁴⁰ The small size of the islands the Marines first had to take in the drive across the Pacific envisioned by Plan ORANGE effectively eliminated the requirement for operational exploitation by the assault force.⁴¹ Once the Marines seized the wrecked enemy front lines—and with the small size of those islands precluding the Japanese from using defense in depth to preserve manpower—they effectively had control of the island. The French army, bearing heavy scars from repeated failed efforts to translate tactical success into operational opportunity on the western front, and confident in its ability to prevail in a war of exhaustion, sought to deliver victory without the extraordinary costs that exploiting tactical penetrations produced. For all the success that the German army's infiltration tactics achieved in terms of territory gained, it came at a heavy price.

Interestingly, in a replay of what happened on the western front, improvements in the fire support provided by the Marines and Navy for amphibious landings caused the Japanese to alter their tactics as the operational geography changed. As the fighting reached closer to the Asian mainland, the islands that the Marines needed to assault were much larger than the small atolls of the central Pacific. Eschewing their earlier notion that the “enemy will be destroyed at

the beach,” and having been crushed under the weight of American firepower in the Marshalls, Japanese commanders took advantage of the larger islands on which they now were fighting to abandon the method of defending forward on the beach, where their men could not hope to maintain combat effectiveness under the weight of USN gunfire.⁴² Instead, echoing the German shift to defense in depth after 1916, Japanese commanders at Luzon, Iwo Jima, and Okinawa pulled back from forward positions on the beaches to concentrate their defenses inland. Consequently, American forces found themselves facing limited resistance to their initial landings, only to face a murderous task as they pushed beyond the beaches. True to the pseudo-French methods they adopted, the Marines did not approach this task by aping German tactics, which relied heavily on an assumption that disrupted defenders would surrender out of shock rather than fight to the death, and thus were ill suited for use against Japanese forces that were willing to fight to the death. Instead, they relied on heavy firepower and methodical advances to grind down the Japanese defenders in grueling, murderous battles of attrition.⁴³ Had such methods been briefed in 1934, it is not hard to imagine a far more friendly reception from a French audience than a German one.

Comparing the French army’s and U.S. Marines’ approaches to doctrinal development offers a compelling reminder that the ultimate test for assessing military organizations’ approach to tactical problems is how well suited they were to the specific problem that particular military faced. It also underlines the need to be skeptical of overly simplistic conclusions about linear cause-and-effect relationships among innovation, methods, and battlefield results. As Carl von Clausewitz noted when discussing the value of historical examples to guide how to think about problems, “If anyone lists a dozen defeats in which the losing side attacked with divided columns, I can list a dozen victories in which that very tactic was employed.” Unfortunately, he laments, a tendency to search for simple prescriptive lessons that results in insufficient attention to both the broader and the deeper contexts that shaped past events often has led to “superficial, irresponsible handling of history” that then produced “hundreds of wrong ideas and bogus theorizing.”⁴⁴

Industrial-age firepower presented the military organizations that fought the world wars with the daunting challenge of figuring out how to employ firepower in ways that made it possible for offensive maneuver to secure tactical, operational, and strategic objectives at an acceptable cost. In assessing how well they addressed this problem, paying attention to context is critical. To paraphrase Clausewitz, while one can point to the French experience in 1940 as one case in which methodical, firepower-heavy tactics produced failure, one also can point to the experience of the Marines in the Pacific as an example where it produced success. For that matter, General Matthew Ridgway successfully employed firepower

and methodical advances in Korea to attrit and exhaust the enemy rather than achieve a quick, decisive battlefield victory—the same strategic context in which the French and Marines developed their doctrines.⁴⁵

France's and Germany's efforts to address the frontal-assault problem led them down different paths, to be sure, with the latter's approach seeming to have received unimpeachable validation in 1940. Yet looking at these organizations and their operations by comparing them with the efforts of the Marines complicates the picture, as does considering them in depth, as historians Robert Doughty and Williamson Murray have. Although critical in their assessments of French doctrine and institutions, in their accounts of the 1940 campaign Doughty and Murray identify an array of other factors—errors in operational planning, the by no means predetermined outcome of specific tactical events, and even plain luck—that must be weighed just as heavily as, if not more so than, doctrinal and institutional issues to explain the campaign's course and outcome. In the process, they offer a strong reminder to be cautious in identifying cause-and-effect relationships when assessing innovation, since but for a different break here or there, firepower-heavy methodical operations may well have received validation from operations in both Europe and the Pacific.⁴⁶

Of course, they did not. Nonetheless, while giving due weight to battlefield outcomes, we must take care, to borrow from Dennis Showalter, not to approach the study of the military past in the spirit of Calvinist theology, “interpreting victory and defeat as judgments on the military righteous,” and assume that our task is merely to validate and catalog the virtues of the blessed and the sins of the fallen.⁴⁷ It is important not to let this all-too-frequent bias, or the understandable desire to identify concrete cause-and-effect relationships that can be applied to the process of innovation today, prevent us from taking full account of contingency, specificity, and context in studying the past. After all, it is in considering and taking full account of all the factors that shape the course and outcomes of the efforts of military organizations in the past that Clausewitz places our best hope of avoiding “wrong ideas and bogus theorizing”—and their consequences—in the future.⁴⁸

NOTES

1. For example, in their outstanding military history of the war, Williamson Murray and Allan R. Millett proclaim the interwar efforts of the French army “sad,” while lauding the “extraordinary . . . innovations” that the Marine Corps made in amphibious warfare. Williamson Murray and Allan R. Millett, *A War to Be Won: Fighting the Second World War* (Cambridge, MA: Harvard Univ. Press, 2000), pp. 24–25, 39–41.
2. Michael Howard, “The Use and Abuse of Military History,” *Journal of the Royal United Service Institution* 107 (1962), pp. 7–8.
3. Robert A. Doughty, *Pyrrhic Victory: French Strategy and Operations in the Great War*

- (Cambridge, MA: Harvard Univ. Press, 2005), pp. 46–124; Michael S. Neiberg, *Fighting the Great War: A Global History* (Cambridge, MA: Harvard Univ. Press, 2005), pp. 11–37.
4. Hew Strachan, *The First World War* (New York: Penguin, 2003), p. 168; Doughty, *Pyrrhic Victory*, pp. 123–32.
 5. Jonathan M. House, *Combined Arms Warfare in the Twentieth Century* (Lawrence: Univ. Press of Kansas, 2001), pp. 37–40; Timothy T. Lupfer, *The Dynamics of Doctrine: The Changes in German Tactical Doctrine during the First World War* (Fort Leavenworth, KS: Combat Studies Institute, 1981), pp. 2–4. The challenge was different on the eastern front; the 1915 German offensive in Poland illustrated how the extent of the front meant that there were more potential places to attempt a breakthrough and thus defenders were compelled to keep their reserves farther back to be able to cover more positions. This made it possible for German attackers not only to create a break-in but also to move up quickly enough to achieve a breakthrough, which forced the Russians to give up large amounts of territory. However, the eastern front's extent meant both that it was easier for the attacker to win the race with the defender and that operationally and strategically decisive points remained too far away to prevent a defeated defender from rallying in rear areas and restoring the front. For relevant studies of eastern front operations in 1915, see Norman Stone, *The Eastern Front, 1914–17* (New York: Scribner's, 1975), pp. 165–93, and Richard L. DiNardo, *Breakthrough: The Gorlice-Tarnow Campaign, 1915* (Santa Barbara, CA: Praeger, 2010).
 6. Strachan, *The First World War*, pp. 173–77; Douglas Porch, "The French Army in the First World War," in *Military Effectiveness*, ed. Allan R. Millett and Williamson Murray, vol. 1, *The First World War* (Cambridge, U.K.: Cambridge Univ. Press, 2010), p. 203.
 7. Doughty, *Pyrrhic Victory*, pp. 133–34, 145–48, 156–57, 162–63, 168–72, 189–95, 253–54.
 8. Lupfer, *Dynamics of Doctrine*, pp. 30–35; Doughty, *Pyrrhic Victory*, pp. 323–26; Porch, "The French Army in the First World War," p. 216.
 9. Doughty, *Pyrrhic Victory*, pp. 323–26, 366–70; René Radiguet, *The Making of a Modern Army and Its Operations in the Field: A Study Based on the Experience of Three Years on the French Front (1914–1917)*, trans. Henry P. du Bellet (New York: G. P. Putnam, 1918), p. 77.
 10. Not least of Pétain's accomplishments employing these tactics was compelling the Germans to abandon the Chemin des Dames, on which the Nivelle offensive had expended so much blood in pursuit of a breakthrough earlier in the year; see Corelli Barnett, *The Swordbearers: Supreme Command in the First World War* (London: Eyre & Spottiswood, 1963), pp. 250–55, and Doughty, *Pyrrhic Victory*, pp. 379–89.
 11. Robert A. Doughty, "French Operational Art, 1888–1940," in *Historical Perspectives of the Operational Art*, ed. Michael D. Krause and R. Cody Phillips (Washington, DC: U.S. Army Center of Military History, 2005), pp. 82–83, 86–89; Strachan, *The First World War*, pp. 316–21, 324–25.
 12. Robert A. Doughty, *The Breaking Point: Sedan and the Fall of France, 1940* (Hamden, CT: Archon Books, 1990), pp. 22–30; Doughty, "French Operational Art," p. 92; House, *Combined Arms Warfare*, pp. 83–90.
 13. It should be noted that, in France, the top-down doctrinal and organizational approach was a consequence also of the fact that army leaders had to assume the army's wartime ranks would be filled by conscripts from a society whose appetite for military service had been dulled decidedly by the bloodletting of World War I and who had limited time in uniform to develop tactical proficiency; see Eugenia C. Kiesling, *Arming against Hitler: France and the Limits of Military Planning* (Lawrence: Univ. Press of Kansas, 1996).
 14. Robert A. Doughty, *The Seeds of Disaster: The Development of French Army Doctrine, 1919–39* (Hamden, CT: Archon Books, 1985; repr. Mechanicsburg, PA: Stackpole Books, 2014), p. 4. Citations refer to the Stackpole edition.
 15. Williamson Murray, "Armored Warfare: The British, French, and German Experiences," in *Military Innovation in the Interwar Period*, ed. Williamson Murray and Allan R. Millett (Cambridge, U.K.: Cambridge Univ. Press, 1996), pp. 29–34; Doughty, *Seeds of Disaster*, pp. 186, 196.

16. Lupfer, *Dynamics of Doctrine*, pp. 37–41; House, *Combined Arms Warfare*, pp. 52–53; Murray, “Armored Warfare,” pp. 34–37.
17. Lupfer, *Dynamics of Doctrine*, pp. 41–49; Richard L. DiNardo and Daniel J. Hughes, *Imperial Germany and War, 1871–1918* (Lawrence: Univ. Press of Kansas, 2018), pp. 382–405.
18. House, *Combined Arms Warfare*, pp. 51–56; Doughty, *Seeds of Disaster*, pp. 97–116; Doughty, “French Operational Art,” p. 91; Lupfer, *Dynamics of Doctrine*, pp. 41–53.
19. Rod Paschall, *The Defeat of Imperial Germany, 1917–1918* (New York: Da Capo, 1994), pp. 135–62; Holger H. Herwig, “The Dynamics of Necessity: German Military Policy during the First World War,” in *The First World War*, ed. Millett and Murray, pp. 102–103.
20. For discussion of the jaundiced view of attrition by practitioners and students of warfare, see Carter Malkasian, “Toward a Better Understanding of Attrition: The Korean and Vietnam Wars,” *Journal of Military History* 68 (July 2004), pp. 911–12, 914–17. The strain of Germanophilia in the Cold War U.S. Army was particularly evident in the work of Gen. William DePuy, who played a critical role in shaping the direction of doctrinal development and training reform after Vietnam. Henry G. Gole, *General William E. DePuy: Preparing the Army for Modern War* (Lexington: Univ. Press of Kentucky, 2008), pp. 262–64.
21. Robert T. Foley, “A Case Study in Horizontal Military Innovation: The German Army 1916–1918,” *Journal of Strategic Studies* 35 (December 2012), pp. 799–827; James S. Corum, *The Roots of Blitzkrieg: Hans von Seeckt and German Military Reform* (Lawrence: Univ. Press of Kansas, 1992), pp. 5–13, 30–34, 37–49; Murray, “Armored Warfare,” pp. 37–39.
22. Doughty, *The Breaking Point*, pp. 26–32; Murray, “Armored Warfare,” pp. 34–45; Donn A. Starry, “To Change an Army,” *Military Review* 63 (March 1983), pp. 21–23; Trevor N. Dupuy, *A Genius for War: The German Army and General Staff, 1807–1945* (Englewood Cliffs, NJ: Prentice Hall, 1977). In the past few decades, historians have trained a much more critical eye on the German military, pushing back against what political scientist John J. Mearsheimer called “Wehrmacht penis envy” in the American military and among students of warfare. See William J. Astore, “Loving the German War Machine: America’s Infatuation with *Blitzkrieg*, Warfighters, and Militarism,” in *Arms and the Man: Military History Essays in Honor of Dennis Showalter*, ed. Michael S. Neiberg (Boston, MA: Brill, 2011), pp. 7–9, and Williamson Murray, *War, Strategy, and Military Effectiveness* (Cambridge, U.K.: Cambridge Univ. Press, 2011), pp. 195–230.
23. Allan R. Millett, “Assault from the Sea: The Development of Amphibious Warfare between the Wars; The American, British, and Japanese Experiences,” in *Military Innovation in the Interwar Period*, ed. Murray and Millett, pp. 51–53.
24. George W. Baer, *One Hundred Years of Sea Power: The U.S. Navy, 1890–1990* (Stanford, CA: Stanford Univ. Press, 1993), pp. 51–53, 120–28; Ronald H. Spector, *Eagle against the Sun: The American War with Japan* (New York: Free Press, 1985), pp. 54–59. For the evolution of American war plans in the decades prior to World War II, the institutions responsible for their development, and the assumptions behind them, see Edward S. Miller, *War Plan Orange: The U.S. Strategy to Defeat Japan, 1897–1945* (Annapolis, MD: Naval Institute Press, 1991); Henry G. Gole, *The Road to Rainbow: Army Planning for Global War, 1934–1940* (Lawrence: Univ. Press of Kansas, 2003); and John T. Kuehn, *America’s First General Staff: A Short History of the General Board of the U.S. Navy, 1900–1950* (Annapolis, MD: Naval Institute Press, 2017).
25. Jerold E. Brown, “Tarawa: The Testing of an Amphibious Doctrine,” in *Combined Arms in Battle since 1939*, ed. Roger J. Spiller (Fort Leavenworth, KS: Combat Studies Institute, 1992), p. 19. In their manual on defending an advanced base, the Marines listed the “main advantages” that defenders enjoyed as the following: “A distinct superiority of position, in view of the difficulties of attack from the sea against a prepared position; Knowledge and choice of terrain with excellent fields of fire; Highly organized fires employed in conjunction with obstacles placed at the water’s edge; Excellent observation; Assailant’s lack of information and the difficulty of conducting preliminary reconnaissance while still at sea.” David J. Ulbrich, “The Long Lost

- Tentative Manual for Defense of Advanced Bases* (1936),” *Journal of Military History* 71 (July 2007), pp. 895–96.
26. Spector, *Eagle against the Sun*, pp. 26–27; Benis M. Frank and Henry I. Shaw Jr., *Victory and Occupation*, vol. 5 of *History of the U.S. Marine Corps Operations in World War II* (Quantico, VA: U.S. Marine Corps Historical Branch, 1968), pp. 653–56; Millett, “Assault from the Sea,” pp. 72–77. Two years later, work on a complementary *Tentative Manual for Defense of Advanced Bases* was completed at Quantico under the direction of the commandant of the Marine Corps schools, Brig. Gen. Thomas Holcomb. Ulbrich, “The Long Lost *Tentative Manual*,” pp. 890–92, 901. Underscoring the importance the Marines placed on their institutions of professional military education, the same year work was completed on this manual Holcomb was made commandant of the Marine Corps. He subsequently became the first Marine officer to hold the ranks of lieutenant general and (after retirement) general. David J. Ulbrich, *Preparing for Victory: Thomas Holcomb and the Making of the Modern Marine Corps, 1936–1943* (Annapolis, MD: Naval Institute Press, 2011).
 27. Brown, “Tarawa,” pp. 19–26; Millett, “Assault from the Sea,” pp. 90–93; Frank and Shaw, *Victory and Occupation*, pp. 656–58.
 28. Office of Naval Operations, Division of Fleet Training, *Landing Operations Doctrine, United States Navy 1938*, FTP 167 (Washington, DC: U.S. Government Printing Office, 1938), pp. 4, 15.
 29. *Ibid.*, pp. 15, 113.
 30. Millett, “Assault from the Sea,” pp. 54–58.
 31. *The World at War*, episode 23, “Pacific—February 1942–July 1945,” directed by John Pett, written by David Wheeler, produced by Thames Television, aired 17 April 1974, on ITV, 4:22; Joseph H. Alexander, *Across the Reef: The Marine Assault of Tarawa* (Washington, DC: Marine Corps Historical Center, 1993), pp. 6–7.
 32. Howard Jablon, *David M. Shoup: A Warrior against War* (Lanham, MD: Rowman & Littlefield, 2005), pp. 39–42; Alexander, *Across the Reef*, pp. 4–5; Jeter A. Isley and Philip A. Crowl, *The U.S. Marines and Amphibious Warfare: Its Theory, and Its Practice in the Pacific* (Princeton, NJ: Princeton Univ. Press, 1951), pp. 200–205.
 33. In their critique of this approach to fire support at Tarawa, Murray and Millett declare “‘neutralized’ a worrisome usage since a neutralized force might very well unneutralize itself.” Murray and Millett, *A War to Be Won*, pp. 344–45.
 34. Brown, “Tarawa,” pp. 23–26; Alexander, *Across the Reef*, pp. 3, 8–46, 50.
 35. That was a luxury the French army did not have in World War II, which must be taken into account when comparing their experience with that of the Marines. Nor did they, like the Germans, have a previous campaign in Poland from which to gain practical combat experience and draw lessons. Even so, one fairly may question whether the French would have done nearly as effective a job as the Germans did, as the effort the Germans made to study critically their conduct of operations in a victorious campaign, as Murray has noted, is relatively rare in military history. Williamson Murray, “Reflections on German Military Reform,” *Armed Forces and Society* 7 (Winter 1981), pp. 285–98.
 36. Frank and Shaw, *Victory and Occupation*, pp. 672–74.
 37. James R. Stockman, *The Battle for Tarawa* (Washington, DC: Historical Section, Division of Public Information, Headquarters Marine Corps, 1947), p. 67; Joseph H. Alexander, “Across the Reef: Amphibious Warfare in the Pacific,” in *The Pacific War Companion: From Pearl Harbor to Hiroshima*, ed. Daniel Marston (Oxford, U.K.: Osprey, 2005), p. 203.
 38. Robert D. Heintz Jr. and John A. Crown, *The Marshalls: Increasing the Tempo* (Quantico, VA: Historical Branch, Headquarters Marine Corps, 1954), pp. 15–16, 37, 39; Thomas W. Zeiler, *Unconditional Defeat: Japan, America, and the End of World War II* (Wilmington, DE: Scholarly Resources, 2004), pp. 29–42.
 39. Murray cites the experiences of both the Marines and the French army as providing examples of military institutions that had “a concrete problem” they had “vital interests in solving,” lamenting that it was nonetheless insufficient in the case of the latter to “overcome a number of systemic defects and misperceptions in French doctrine.”

- Williamson Murray, "Innovation: Past and Future," in *Military Innovation in the Interwar Period*, ed. Murray and Millett, pp. 311–12.
40. Notably, when the plan for the June 1944 landing at Saipan in the Marianas called for making "the landings a kind of amphibious blitzkrieg that would carry the first wave of troops more than a mile inland," and was accompanied by a poorly managed preliminary bombardment, the result was heavier casualties and tougher going in the assault than had been experienced in the Marshalls. Spector, *Eagle against the Sun*, pp. 302–304.
41. Of course, a number of factors—not least Douglas MacArthur's insatiable ego—led the United States to deviate from Plan ORANGE's single drive across the western Pacific and also undertake major offensive operations from Australia and the Solomons to New Guinea and the Philippines. Nonetheless, the advance across the central Pacific by naval forces under the direction of Chester Nimitz, in which the principles for conducting an opposed amphibious landing were tested, was conducted to a considerable degree in line with prewar plans.
42. Heintz and Crown, *The Marshalls*, p. 32.
43. Spector, *Eagle against the Sun*, pp. 495–502, 518–19, 533–40; Murray and Millett, *A War to Be Won*, pp. 496, 511–16; Zeiler, *Unconditional Defeat*, pp. 153–72.
44. Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton Univ. Press, 1976), pp. 171–72.
45. For Ridgway's efforts and methods in Korea, see Malkasian, "Toward a Better Understanding of Attrition," pp. 920–27, and Matthew B. Ridgway, *The Korean War* (Garden City, NY: Doubleday, 1967), pp. 111–23.
46. Moreover, as Jeffery Gunsburg has noted, when they met the Germans in a situation in which they could apply their doctrine in 1940, French forces performed rather well. Unfortunately, as chronicled by Doughty and Murray, this was negated by poor operational decisions made by the French high command as a consequence of their misidentification of the main German effort and the good fortune German forces experienced elsewhere at critical points in the campaign. Jeffery A. Gunsburg, "The Battle of Gembloux, 14–15 May 1940: The 'Blitzkrieg' Checked," *Journal of Military History* 64 (January 2000), pp. 97–140; Doughty, *The Breaking Point*, pp. 15–28, 135–211, 339–49; Williamson Murray, "May 1940: Contingency and Fragility of the German RMA," in *The Dynamics of Military Revolution, 1300–2050*, ed. MacGregor Knox and Williamson Murray (Cambridge, U.K.: Cambridge Univ. Press, 2001), pp. 154–74.
47. Dennis E. Showalter, *The Wars of Frederick the Great* (London: Longman, 1996), pp. 1–2.
48. Clausewitz, *On War*, p. 173.