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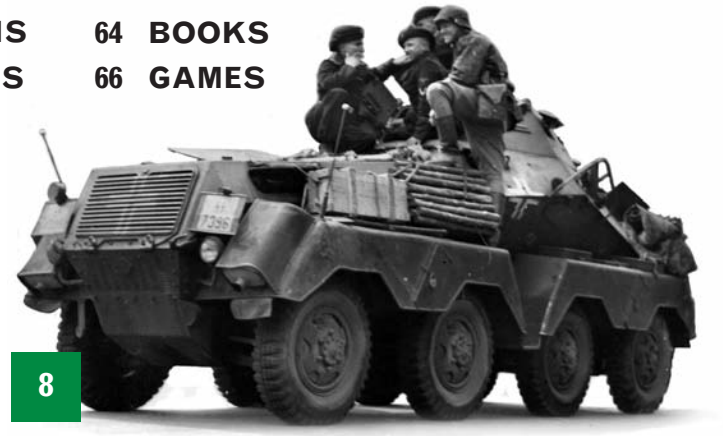

COVER: "Vive l'Empereur!" by Édouard Detaille shows the French 4th Hussar's charge on the Russians at the the Battle of Friedland. Photo: Google Art Project. See story page 24.

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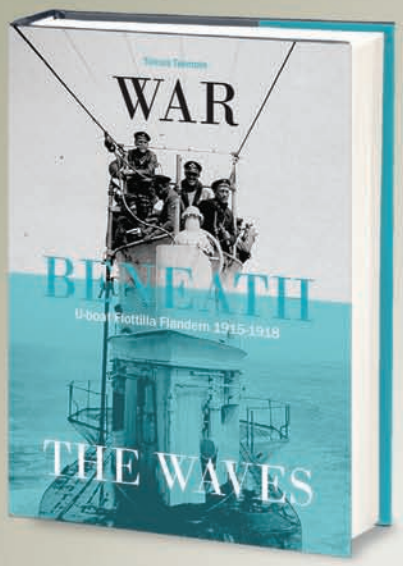

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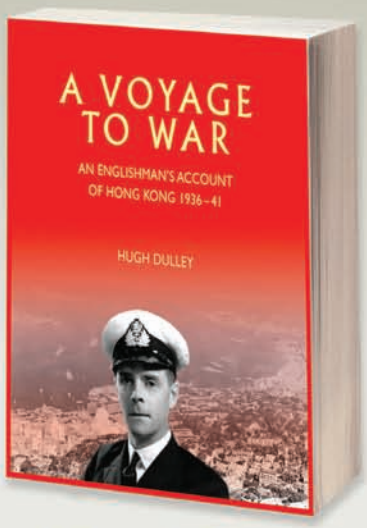

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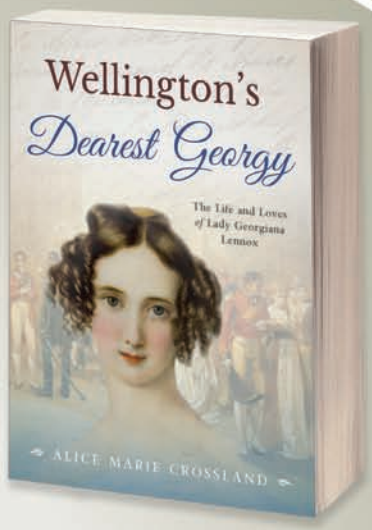

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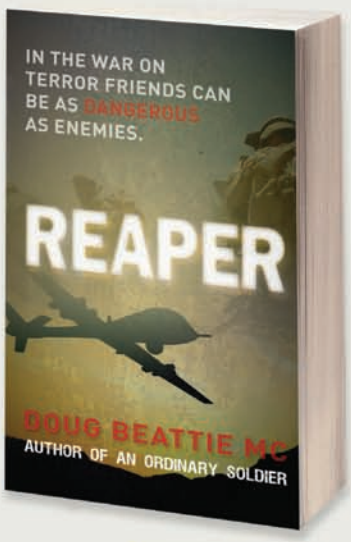

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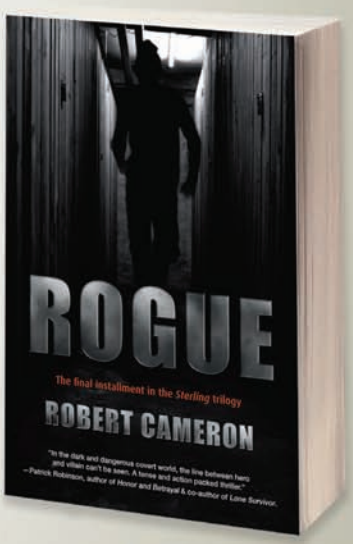

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Forest of Horrors

THE WOODS WERE CLOSE-PLANTED FIR TREES, AND the shell-bursts tore and smashed them, and the splinters from the tree bursts were like javelins in the half-light of the forest," wrote war correspondent Ernest Hemingway of the experience of Lt. Gen. Courtney Hodges' U.S. First Army as it fought its way into the Hürtgen Forest just inside Germany in autumn 1944.

One way to appreciate the horrific conditions in which First Army fought is through the eyes of war correspondents such as Hemingway, Mack Morriss, and others. Their lyrical prose brings the wooded battlefield to life.

"The firs are thick, and there are 50 square miles of them standing dismal and dripping at the approaches to the Cologne plain," wrote Morriss for *Yank* magazine. "The bodies of the firs begin close to ground so that each fir interlocks its body with another. At the height of a man standing is a mass of dark, impenetrable green. But at the height of a man crawling, there is room, and it is like a room, low-roofed and forbidding. And through this cave moved the infantry."

The Siegfried Line, or West Wall, in the Hürtgen consisted of two bands. The Americans would first encounter the outer belt, known as the Scharnhorst Line, and then the inner belt, known as the Schill Line. German work parties had built these fortifications with steel and concrete before the war, and they multiplied the defensive strength of the German units occupying them many fold. Taken together, the dense forest and Siegfried Line fortifications were a nearly insurmountable challenge for an attacking force that could not bring to bear its airpower, artillery, and armor in a satisfactory manner in the thick woods.

The German forces sent to defend the Hürtgen had added their own obstructions. These last-minute obstacles, including roadblocks and log and earth bunkers, were "prepared magnificently," wrote Morriss.

The Germans effective use of their artillery prolonged the fight. Hemingway saw firsthand the staggering firepower of the German 88mm flak gun used in direct ground support in the Hürtgen Forest. "The tanks and [tank destroyers] got up the hill and the flak guns (German antiaircraft guns, which fire almost as rapidly as machine guns, being used for direct fire on the ground against the attacking troops) opened up first," wrote Hemingway in *Collier's Weekly,* who accompanied the 22nd Infantry Regiment into the forest.

"American infantry moved up ahead of the M4 Sherman tanks to begin prying the Germans out of their bunkers," wrote Hemingway. "About that time they really opened up with the 88s—the 88s and all that flak. One [tank destroyer] hit a mine ... and the tanks began to run."

But the Americans had what it takes to get the job done. And they gave as well as they received. Hemingway recalls watching a U.S. tank destroyer fire at close range at the steel door of a bunker to get the occupants to surrender. "That old Wump gun fired about six rounds and blasted that door in, and then you ought to have heard them want to come out," he wrote. "They started to come out, and you never seen such a mess. Every one of them was wounded in five or six different places from pieces of concrete and steel." This and similar techniques were repeated until the forest was clear.

—William E. Welsh

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By William E. Welsh

German light and heavy armored cars enabled scouts to gather vital intelligence for panzer units.

FOLLOWING WORLD WAR I, VISIONARIES WITHIN THE GERMAN Reichswehr formulated and refined concepts for mobile warfare built around tanks. A crucial part of the new combined arms concept for mobile warfare was armored reconnaissance vehicles that would scout ahead of panzer units. These armored vehicles would perform the scouting role previously performed by horse cavalry.

The Germans designed and developed multiple families of armored scout cars both in the years leading up to World War II and the actual war years. The vehicles designed and manufactured in the 1930s were four-wheeled light reconnaissance vehicles built on commercial truck chassis for cost reasons and made within the constraints of the Treaty of Versailles. Once the Nazis controlled the government, though, they began building heavy armored scout cars with six and eight wheels to obtain greater cross-country capability.

The purpose of armored reconnaissance vehicles was to be the eyes and ears of the German panzer divisions. Speed and stealth were essential. The scouts were supposed to avoid initiating combat. They not only lacked sufficient firepower to overwhelm enemy armored forces, but their superiors did not want their scout cars needlessly destroyed in combat. Nevertheless, losses occurred as enemy forces frequently ambushed armored scout cars. The scout crews had to balance the need for speed with the need for caution.

The scouts' primary purpose was to explore far ahead of the panzer columns, penetrate enemy lines, and radio valuable information to the main elements of the panzer division. They located and reported on enemy troop positions with a particular emphasis on armor concentrations. They also looked for secondary river crossings that would serve as alternate routes under the assumption that the enemy would block major bridges.

Reconnaissance battalions with armored scout vehicles were part of the organic composition of motorized and armored divisions. Other key elements of the reconnaissance battalions were pioneers, motorcycle troops, and artillerymen in half-tracks or trucks that towed 37mm and 75mm antitank guns. A common tactic was for the German motorcycle troops and artillerymen to brush aside enemy outposts to allow the armored scout cars to surge through enemy lines on long-range reconnaissance missions 60 miles ahead of the main force. German recruiting materials highlighted the adrenaline rush that came from joining a reconnaissance battalion. Those who belonged to these units maintained an esprit de corps throughout the war.

The 1920 Treaty of Versailles limited Germany's army to 100,000 men of which the officer corps was to number only 4,000. Article 171 of the treaty banned the German military from building vehicles on

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An Sdkfz.261 light armored radio vehicle in Russia in 1941. Scouting vehicles were an integral part of the reconnaissance battalions of panzer and motorized regiments in World War II.

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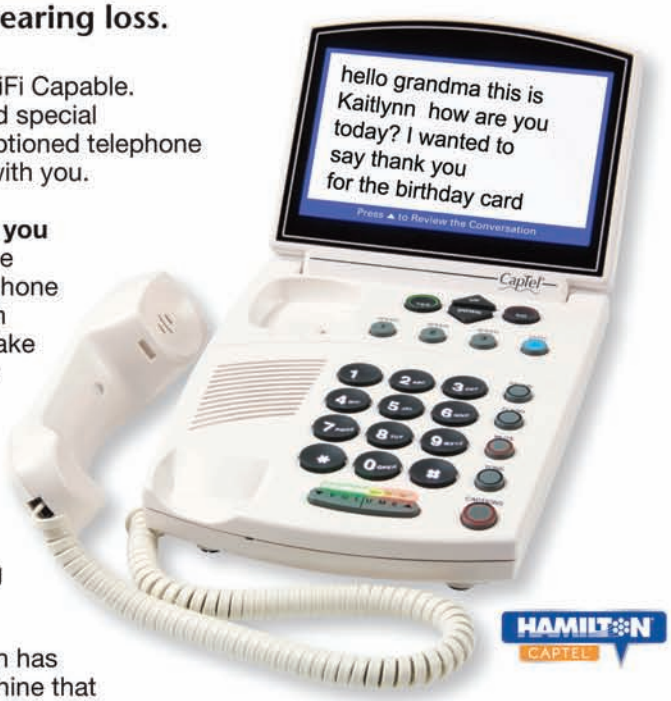

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Reconnaissance troops of Panzergrenadier Division Grossdeutschland cross the Ukrainian steppe northwest of Kharkov. Pictured with half-tracks are an SdKfz.222 light armored vehicle and the SdKfz.263 heavy armored command vehicle.

tracks and severely limited the type of armored military vehicles the Reichswehr was allowed to build. However, the political unrest that consumed Germany in the immediate aftermath of World War I compelled the Allied Control Organization to allow the Reichswehr to have a small number of wheeled armored personnel carriers.

To meet this need, Daimler manufactured 105 of the lumbering Gepanzerter Mannschaftstransportwagen (MTW). These unarmored, weaponless vehicles were operated by a crew of three and carried a dozen riflemen. The armored scout cars were designated as Sonderkraftfahrzeug (Sdkfz), which translates to special motor vehicle, and assigned a number. The first of these was the MTW, which was designated Sdkfz.3.

Whereas the Treaty of Versailles forbade the Reichswehr from having armored vehicles, the Schutzpolizei, which was the uniformed civil police force for the individual German states, was allowed to have armored cars. The treaty specified that Germany could recruit 150,000 men into the Schutzpolizei and that it could manufacture one armored vehicle for every 1,000 men.

The Reichswehr subsequently established seven motor battalions, or Kraftfahr-abteilungs, in 1929 that enabled its theorists and engineers to test and refine vehicles for mobile warfare. Concurrent with this was the effort to establish motorized armored reconnaissance battalions that would be an integral part of Germany's future armored forces once it could get out from under the restrictions embodied in the treaty.

Several respected German vehicle manufacturers, such as Benz, Daimler, and Ehrhardt, produced an armored vehicle with twin machine-gun turrets and a command cupola known as Sonderschupowagen (Armed Police Special Purpose Vehicles) for the Schutzpolizei.

But the proponents of mobile warfare in the Reichswehr desired armored vehicles with substantial cross-country capabilities. Such capabilities were lacking in the Schutzpolizei vehicles designed to protect local police responding to civil disorders.

By 1930, the restrictions on armored cars appear to have been loosening up as the Reichswehr replaced its MTWs with a sleek, four-wheeled Adler Standard-6 lorry with a commercial chassis that featured a rotating cupola that housed an MG-13 machine gun.

Adler produced a better armored scout vehicle in 1933 in the form of the Sdkfz.13. The vehicle was based on Frankfurt-based Adler Work's limousine-style passenger car introduced in 1932. The rear-wheel-drive, open-topped machine-gun car had 8mm armor and a two-man crew. The Sdkfz 13 mounted one MG-13 behind an armored shield. Its open design afforded little protection for its crew, and it was derisively referred to as "the Bathtub."

A model designed strictly for communications, the Sdkfz.14 had no armament. The radio car was designed for a three-man crew and carried a medium-range radio set suitable for up to five miles with a frame aerial antenna. Although initially intended as a scout car for future armored divisions, the subsequent production of better suited vehicles meant that it

Bundesarchiv Bild 146-2005-0138; Photo: Unknown

Reconnaissance troops participate in an exercise in 1936 with an SdKfz.13 open-topped armored scout car armed with an MG-13 machine gun and a SdKfz.232 six-wheeled heavy armored scout vehicle featuring a fully rotating turret with a 20mm autocannon and an MG-13 machine gun.

eventually was relegated to use by German security forces garrisoning occupied countries.

By this time the German Reichswehr had completed its organizational structure for its armored reconnaissance battalions. Each battalion included two armored car companies, one motorcycle infantry company, and a heavy company with engineers, antitank guns, and infantry support guns. As the war progressed, though, the motorcycle companies became woefully inadequate for cross-country operations in far-flung theaters of war with limited primary roads.

Armored cars were soon being built specifically for military purposes throughout Germany. Upon the death of German President Paul von Hindenburg in the summer of 1934, Hitler became the supreme commander of the German armed forces. He shocked Europe on March 16, 1934, by stating that not only was he instituting requirements for general military service, but also that Germany would immediately begin rearming itself.

The German military contracted for its first true armored scout car in 1935. The main components of the light armored scout vehicle, Sdkfz.221, were assembled by two companies, Schichau in Elbing and Machinenfabrik Neidersachsen in Hanover. Horch of Zwickau furnished the chassis and 75-horsepower V8 engine. Built for a crew of two, the two-ton Sdkfz.221 had a rear-mounted engine, a small open-topped turret, 14mm front armor and 6mm rear armor. It was armed with a 7.92mm MG-34 (later upgraded to an MG-42).

In some of the later Sdkfz.221s, a 28mm Panzerbuchse tapered-bore, antitank rifle was substituted for the MG-34. To fit the antitank gun with its shield required cutting away part of the front of the turret. Later models came equipped with a hanging machine-gun mount for defense against enemy aircraft. The design included detachable turret screens to protect the crew from enemy hand grenades. These screens were hinged to allow one of the crew to stand up. Access to the vehicle was either through the turret or a small hatch on the lower half of the vehicle. The Wehrmacht contracted for a total of 339 Sdkfz 221s.

On the negative side, the engineers went overboard in their design for the light armored scout vehicle by including four-wheel drive and four-wheel steering, both of which the driver selected with levers. The latter was unnecessary. Four-wheel steering not only drove up the cost but also increased the maintenance requirements. On the positive side, the rear-mounted engine allowed for a sleek front end with sloped armor that increased its ability to deflect incoming shells.

In addition to having only two crew members, the Sdkfz.221 could be distinguished from its slightly bigger successors by its large driver's window, its slanted tail, and its rectangular-shaped radiator. The Sdkfz.221 had a top speed of roughly 55 miles per hour and a range of nearly 200 miles. It would prove satisfactory for operations in Poland and France, both of which had good roads, but inadequate for the demands of the Eastern Front. For that reason, it was retired from the battlefront in 1943.

The armored scout car that followed the Sdkfz.221 possessed considerably more firepower and became a ubiquitous component of German light armored reconnaissance through the midwar period. The Sdkfz.222 was built at the Schichau, Machinenfabrik Neidersachsen, and Bussing-NGA engineering works. The light armored scout vehicle had a commander, driver, and wireless operator. It boasted both a 20mm

cannon and an MG-34. The 20mm KwK 30 gun was fully automatic with a fire rate of 280 rounds per minute. Later models featured the Kwk 38, which fired 480 rounds per minute. The nearly five-ton Sdkfz.222 had a Horch chassis and was powered by an 81-horsepower Horch engine and had a top speed of 50 miles per hour. The driver had two small windows on the front of the vehicle. The Germans stopped production in 1944 after building 990 Sdkfz.222s.

A radio vehicle model, the Sdkfz.223, came equipped with a 19SE30 long-range radio and a frame antenna. It was armed only with an MG-34. Because of this, the turret was much smaller than the Sdkfz.222's, which had two turret-mounted weapons. The Sdkfz.222 and Sdkfz.223 were frequently paired on reconnaissance patrols with the Sdkfz.222 furnishing the protective firepower and the Sdkfz.223 furnishing robust communications capabilities.

The Reichswehr also contracted for two command vehicles known as Light Armored Radio Vehicles, which would use the Sdkfz.221 hull. These armored cars were not intended as reconnaissance vehicles but rather as command, control, and intelligence vehicles. Both of the turretless vehicles were designed to have a commander, driver, and two wireless operators.

The Sdkfz.260, which had rod antennas, was outfitted with a FuG Spr "a" short-range radio set for communication among platoon or company vehicles and a Fug 7 VHF transceiver to communicate with reconnaissance aircraft.

The Sdkfz.261 had a folding-frame antenna to support long-range communications. It was equipped with a FuG Spr "a" short-range radio set and a FuG 12 medium-wave transceiver for long-range communications. Production of the two command vehicles began in 1940 and ended three years later with 493 of both kinds built.

The Reichswehr also had plans as early as 1927 for a heavy armored scout vehicle. Because of funding constraints, plans for eight-wheel and 10-wheel versions were weeded out. The planners settled on a six-wheel vehicle that would be built on existing six-wheel truck chassis. The Army Weapons Office awarded contracts to three firms in 1929 specifying that the vehicle should have four driven rear wheels (all of which had two tires) and front and rear steering. Interestingly, the rear-steering position had a steering wheel and driver's controls.

The Reichswehr proceeded with production of a family of three six-wheel heavy vehicles beginning in 1932. Two of the vehicles were heavy scout cars, and one was a heavy radio car. The Army Weapons Office spread the work around. The Sdkfz.231 heavy armored scout vehicle would use the chassis made by Daimler-Benz AG of Stuttgart, the Sdkfz.232 heavy armored scout vehicle used the chassis made by Bussing-NAG of Braunschweig, and the Sdkfz.263 heavy armored command vehicle used the chassis made by Magirus of Ulm.

Unknown

Scout troops clad in panzer uniforms and berets sit atop an SdKfz.231 (8-rad) heavy armored reconnaissance vehicle.

The two heavy armored scout vehicles had a fully rotating turret with a 20mm KwK autocannon and an MG-13 machine gun, while the heavy armored radio vehicle had an immovable turret with an MG-13 machine gun. The two heavy armored cars were designed for crews of four. They received newer machine guns as they became available.

The 5.9-ton Sdkfz.231 (6-rad) used various engines with a range of 65 to 70 horsepower, giving it a top road speed of 37 miles per hour. The angled armor was 14mm thick. The 6.1-ton Sdkfz.232 (6-rad) had radio capability with a frame antenna. The 5.75-ton Sdkfz.263 (6-rad) had radio capability, carried a crew of five, and also had a frame antenna.

The lack of drive to the front axle made for poor cross-country capability even though all vehicles in the family had two ground rollers, one installed under the front of the vehicle and one midway under the chassis designed to prevent the vehicle from getting stuck in various offroad situations. The total number of all three types built between 1932 and 1937 was approximately 1,000. Production halted with the introduction of the eight-wheel scout vehicle in 1937; however, the three six-wheel heavy armored cars were used in the campaigns in Poland and France and then relegated to internal security duties.

Once Hitler rose to power, previous cost-cutting measures, such as the use of an existing truck chassis for the heavy armored car, were no longer necessary. Thus, the armored car designers were able to proceed with the eight-wheeled versions previously left on the drawing board.

The Sdkfz.231 (8-rad) and Sdkfz.232 (8-rad) replaced the Sdkfz.231 (6-rad) and Sdkfz.232 (6-rad), respectively. The 8.15-ton vehicle was powered by a Bussing 155-horsepower engine and was capable of a much improved road speed of 53 miles per hour. Each of the eight wheels had independent suspension. The crew and the armament were the same as the six-wheel version. However, the frontal armor was increased to 30mm while the side and rear armor remained 14mm. Likewise, the Sdkfz.232 (8-rad) had a frame antenna similar to the six-wheel version. Production on the eight-wheeled heavy armored vehicles began in 1936 and ended in 1943 with a total of 607 built.

The Sdkfz.233 (8-rad) was an upgunned version of the Sdkfz.231 (8-rad). The short-barreled 75mm StuK 37 L/24 replaced the 20mm KwK autocannon. The main gun was mounted at the front of the fighting compartment, which was left open. The lack of a turret meant that the gun had a limited traverse. The 75mm guns were left over from production of the Sturmgeschutz III assault gun. Production of the Sdkfz.233 began in July 1942 and ended in October 1943. The vehicle was meant to replace the towed 75mm howitzer used until

that time by heavy companies of the armored reconnaissance battalions that had a pressing need for a self-propelled gun. The first 18 produced were sent to Tunisia, and the remaining 111 were deployed on the Eastern Front.

The Germans made the Sdkfz.234 (8-rad) family of eight-wheel heavy armored cars, of which there were four types, toward the end of the war. The diesel-engine Sdkfz.234/1 with a crew of four had a 20mm cannon, an MG-42 machine gun, wireless radio capability, and larger diameter wheels than the Sdkfz.231 (8-rad) series for substantially better cross-country capability. The 10-ton vehicle's frontal armor was 30mm thick, turret side and rear armor were 14.5mm thick, and hull rear and side armor were 8mm thick. The designers increased the fuel capacity, which gave the vehicle an impressive range of 372 miles. The Germans began producing these in June 1944 and built 230.

The four-man Sdkfz.234/2 (8-rad) boasted the KwK 39 50mm L/60 gun used by late variants of the Panzer III. The Puma, as the vehicle was known, also had an MG-42. The cannon, which had a muzzle brake to reduce recoil, and machine gun were mounted coaxially in an enclosed turret with full traverse. The Germans built 101 between September 1943 and September 1944.

The turretless Sdkfz.234/3 was armed with a 75mm L/24 howitzer with limited traverse and an MG-42. The Germans built 88 in the three-month period from June to September 1944.

Production of the Sdkfz.234/4 began shortly afterward. This vehicle mounted the PAK 40 antitank gun on a pivot in an open fighting compartment along with an MG-42. Production ran from December 1944 to March 1945. During that period 89 were built.

Also worth mentioning was the Sdkfz.263, which was a five-man radio vehicle with a FuG 12 medium-wave transceiver for long-range communications. The vehicle, which was produced between 1938 and 1943, had both mast and frame antennae and was armed with an MG-34 (later MG-42) machine gun. A total of 240 were built.

In the long retreats that characterized the last two years of the war, particularly in Russia, the armored cars were used in battle groups formed of remnants of panzer, panzergrenadier, and SS divisions. Under such circumstances, the notion that scouts were not to engage in combat often went by the wayside and firepower was critical to survival. From this standpoint, the thicker armor and larger weapons possessed by the eight-wheel heavy armored scout cars undoubtedly proved quite useful. □

By Joshua Shepherd

Charles Gordon's thirst for danger ultimately led to his death in Khartoum at the hands of fanatical Mahdists.

Major General Charles George Gordon shows no fear as fanatical Mahdists close in on him on a stairway of the governor-general's palace in Khartoum.

FOR BRITISH AUTHORITIES IN EGYPT, THE CONTENTS OF THE DIARY that had been smuggled out of Khartoum, Sudan, contained devastating intelligence. Governor-General Charles Gordon, the journal's author, detailed a grim situation. Trapped in the city were 7,000 demoralized troops. A horde of Muslim tribesmen, which numbered upward of 50,000, completely encircled them. Although he held out hope for a last-minute miracle, Gordon's final diary entry offered a chilling warning. "If the Expeditionary Force ... does not come in 10 days, the town may fall," he wrote. "I have done my best for the honor of our country. Goodbye."

The epic struggle for Khartoum would be a fitting culmination to the career of one of the British Empire's most celebrated warriors. Charles George Gordon was born January 28, 1833, in Woolwich, England. The town was, appropriately enough, home to the Royal Military Academy. His father, Henry Gordon, was an indefatigable career officer who had served in a variety of posts, risen to the rank of general, and fathered 11 children.

The precocious younger Gordon seemed destined to continue the family's military tradition. The Royal Military Academy accepted him at the age of 15. During his four years in the academy, he established a pattern of stubborn individuality that would later characterize his professional career. Gordon excelled in all of his studies and showed a particular ability for fortification and cartography. His teachers and classmates came to know him as an introvert who disdained the niceties of military convention.

After graduating in the summer of 1852, Gordon was commissioned in the Royal Engineers. His first duty station was in Wales, which was seen

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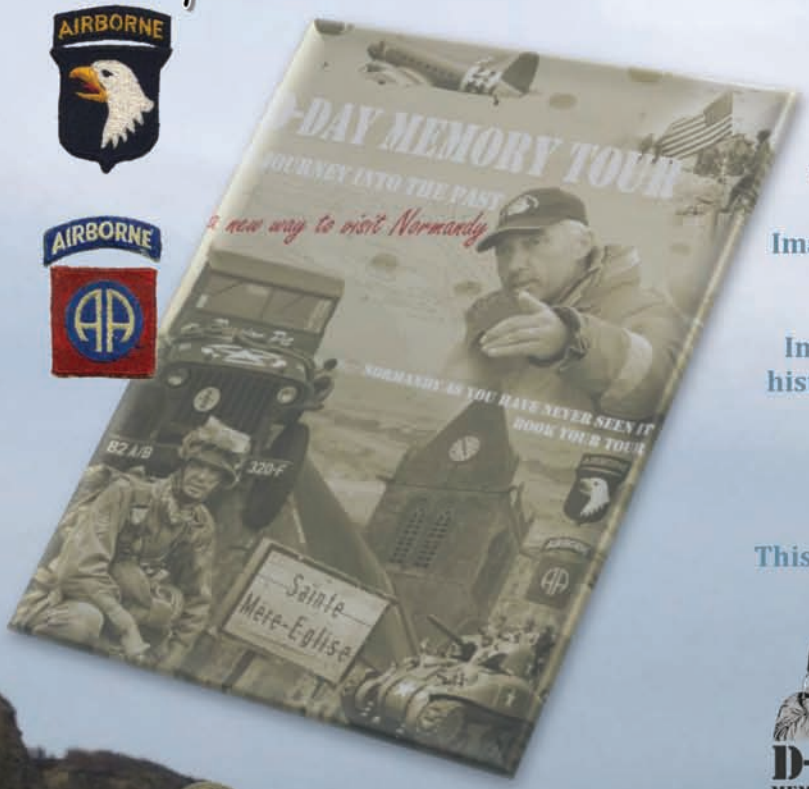

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Gordon was given command of the Ever Victorious Army in China during the Taiping Rebellion. A devout Christian, he ultimately resigned his post in disgust over unnecessary bloodshed.

as an uneventful backwater assignment. Gordon made the most of it, though, and during his time in Wales underwent a watershed personal transformation. Previously disinterested in religious matters, the young lieutenant experienced a profound conversion to Christianity that would come to define him as a man and a soldier. From that point forward, he became a confirmed bachelor and decided stoic in his personal life.

Gordon paired personal piety with a genuine aptitude for fighting. In December 1854, he shipped out for his baptism of fire in the Crimean War. In the Crimea, Gordon put his engineering skills to good use during the siege of Sevastopol, where he proved an industrious junior officer with a knack for leading from the front. Serving in the trenches for weeks at a time, Gordon stayed on the lines after being wounded and earned a reputation for marked composure under fire.

After the war, Gordon pulled key staff assignments, one to Bessarabia and another to Armenia. Gordon came away from the experience with an insatiable addiction to cigarettes, which was the only vice he seems to have allowed himself, and a visceral repugnance for slavery. A flourishing black market that targeted Russian peasants for sale to Turkish elites thoroughly outraged Gordon, and he was further frustrated when his superiors seemed disinterested in addressing the problem. He quickly garnered a reputation as an effective subordinate; however, Gordon could be quite nettlesome, and he was more than willing to protest or disobey orders if he found them unjustified.

He volunteered in 1860 for duty more to his liking. At the time, China was convulsed by the Taiping Rebellion. Great Britain, which was hoping to contain the spread of the rebellion, had formed an uneasy alliance with the Xianfeng emperor. Newly promoted to the rank of captain, Gordon received permission to transfer to China. Assuming command of an engineering outfit, he joined the British occupation of Peking in the autumn of 1860 and then spent a year and a half on garrison duty in Tientsin.

Captain Gordon initially had little to do, and he worried that he had arrived in China too late for the fighting. His fears would prove unfounded. Gordon joined a relief column that reinforced besieged British troops in Shanghai. Afterward, he put his engineering skills to work scouting rebel defenses at Tsingpu.

His skills as a talented and energetic junior officer garnered the attention of his superiors, and they bestowed upon him an independent command in the form of an unlikely armed rabble with the pretentious title of the Ever Victorious Army. The force initially had been financed as a private mercenary army by Shanghai merchants rattled by the Taipings. The emperor eventually folded the force into his own army, and when there was a vacancy in the command of the Ever Victorious Army, English authorities lobbied hard for the appointment of a Briton to the post. For Sir Charles Stavely, overall commander of British forces in China, there was only one choice for the assignment.

Largely at Stavely's insistence, Gordon received command of the Ever Victorious Army in March 1863. At that point, he had 3,000 men under his command. Gordon occupied the curious position of a Westerner in the emperor's army. Although he was officially under Chinese control, Gordon was largely granted operational leeway to fight on his own hook. However, he had strict orders not to operate outside a 30-mile radius of Shanghai. Still, he would function free of the regular Chinese chain of command and report directly to Li Hongzhang, the governor of Kiangsu Province. The unassuming Briton immediately impressed the Chinese governor. "He is superior in manner and bearing to any of the foreigners I have come into contact with and does not show outwardly that conceit which makes most of them repugnant in my sight," wrote Hongzhang.

Commissioned a general in the Imperial Chinese forces, Gordon went right to work. He immediately conducted a personal reconnaissance of the terrain around Shanghai. For that task, Gordon assembled a motley collection of Chinese, British, and American mercenaries who were notorious for unmilitary behavior. Gordon, who had a reputation as a tough but fair disciplinarian, cracked down on looting, issued new uniforms, and conducted regular drills. He placed a heavy emphasis on intelligence gathering, use of local assets, and meticulous planning.

The ultimate prize was the city of Soochow, a Taiping stronghold on the Yangtze River. It was an objective that Gordon, who was an enthusiastic advocate of combined arms doctrine, planned to reduce with a heavy reliance on gunboats. Gordon's flotilla, which was led by the paddle-wheeled flagship *Hyson,* afforded him

startling mobility and a hard-hitting artillery platform. Gordon blooded his troops in Taitsan, where his Ever Victorious Army went into action in support of Imperial forces. Gordon personally directed three attacks on the town, which fell amid bloody fighting. "It really was a tremendous fight, and I never hope to see another like it," wrote Gordon.

In the bloody contest with the Taipings, such hopes would go unfulfilled. Gordon moved his troops toward Quinsan, which was then under siege by Imperial forces. Under somewhat vacuous leadership, they were getting nowhere. The Imperial commander suggested an all-out frontal attack on the city walls. Gordon demurred, though, recommending instead an amphibious operation that would slip behind the city and cut off its lines of supply. Governor Hongzhang, who arrived at the front to exercise nominal supervision, sided with Gordon.

By the end of May 1863, Gordon was on the move in the *Hyson*. Using China's interlaced network of canals as ready-made avenues of attack, Gordon confused Quinsan's defenders by landing ground troops behind the city and bombarding rebel defenses with a 32-pounder on the *Hyson*'s gun deck. At the beginning of June, the city fell after heavy fighting. Although Gordon lost a mere handful of men, the Taipings were not so fortunate. They lost 5,000 men to Gordon's troops and angry peasants. The bloodbath horrified Gordon, but the Chinese governor was delighted with the spirited officer whose planning had made the lopsided victory possible. "What a sight for tired eyes and elixir for a heavy heart it is to see this splendid Englishman fight!" wrote Hongzhang.

In the campaign for Soochow, Gordon hoped to avoid costly frontal attacks. He concentrated on maneuvering his forces so that he could encircle the city and take it by siege. When negotiations for a capitulation went awry, he resorted to combat. Gordon's forces lost 300 killed during a failed attack on November 28, 1863. In early December, Taiping leader Lar Wang, whom Gordon had come to respect, agreed to surrender his starving garrison. Fearing another bloodbath, Gordon ordered his own troops out of the area, leaving the city instead to Imperial forces.

But just as Gordon had feared, the occupation of the city soon degenerated into outright slaughter. Amid the confusion, the British commander was captured and narrowly escaped death; however, the rebel leaders were not as fortunate. Gordon believed that Lar Wang, who was among the slain, had been "foully murdered." In the aftermath of the bloodshed, an enraged Gordon threatened to arrest his

superior, Governor Hongzhang, who he believed was responsible for the killings. Once back in Quinsan, an outraged Gordon was exasperated with the dirty work of suppressing the Taipings and resigned his command of the Ever Victorious Army. Chinese authorities frantically scrambled to retain his services. They offered him rebel battle flags, money, and personal pleas from the emperor, but Gordon would not change his mind.

In February 1864, Gordon agreed to return to his command because he had finally become convinced that the governor had simply reacted to Taiping treachery at Soochow. In the final offensive against the Taiping capital of Nanking, Gordon's troops retook the key towns of Yesing and Lyang, disrupting enemy communications. At Changchow, Gordon laid out a network of siege works preparatory to an assault. When Imperial forces launched an abortive attack on May 11, Gordon personally launched a counterattack that punched through the rebel defenses and captured the city.

Such exploits served as a fitting capstone for Gordon's service in China. When Nanking fell in July 1864, the honor of reducing the city was reserved for Imperial forces. The Qing dynasty denied Gordon and the Ever Victorious Army the honor of participating. In many respects, the decision worked out for the best for Gordon and his troops. The fall of the city, which led to wholesale executions, mass suicides, and rampant bloodshed, resulted in the death of thousands of Chinese. The suppression of the Taiping Rebellion, in which Gordon's generalship had proved so crucial, led to considerable personal honors. Lionized as a military genius in the British press, Gordon was brevetted a lieutenant colonel in the British Army, knighted a Companion of the Bath, and made a Ti-Tu, the highest rank in the Chinese Army. His admirers also gave him the colorful nom de guerre "Chinese Gordon," which would follow him the rest of his life.

Not one to rest on his laurels, Gordon chafed under the tedium of peacetime assignments in England and Eastern Europe. A chance meeting in Constantinople irrevocably altered his fate. Egyptian Prime Minister Nubar Pasha offered Gordon the governorship of the nation's Equatorial Province. After obtaining a leave of absence from the British Army, Gordon accepted the offer. He was eager to apply his energies to the suppression of the African slave trade. On January 28, 1874, his 41st birthday, Gordon departed England.

His plans for eradicating slavery did not involve outlawing the practice but rather choking it off by enforcing control of the water routes

Gordon served as a junior officer in the British Army during the Siege of Sevastopol in the Crimean War where he earned a reputation for marked composure under fire.

on which the trade depended, such as the Nile River, Lake Albert, and Lake Victoria. Gordon arrived at the provincial capital of Gondokoro in April and was soon plagued with myriad obstacles created for him by corrupt officials and inept conscripts. He constructed fortified stations throughout Buganda to cement the Egyptian Khedive's claims to the region. Gordon succeeded in largely curtailing the slave trade on the Nile, but he was unable to stop the use of overland trade routes across Sudan. Physically exhausted after less than a year in the tropics, Gordon resigned in January 1877.

But the Egyptians wanted Gordon's continued assistance, so they offered him the governor-generalship of Sudan. Gordon accepted in the hope that such a position would enable him to more effectively combat the slave trade. Gordon instituted heavy taxes on slave owners and introduced a cumbersome registration system. He also took to the field with a force primarily composed of liberated slaves to directly confront the slave traders.

Gordon's greatest achievement was the capture of Suleiman Zubair, one of the most powerful of the African warlords. Although heavily outnumbered, Gordon cowed Zubair into surrender. He felt a degree of satisfaction at having pursued the slave dealers to their strongholds. "Even in these remote parts, a mere difference in color does not turn men into chattels, and life and liberty are sacred things," wrote Gordon.

Gordon left Sudan in July 1879. As usual, he found that he had little aptitude for anything less than active campaigning. Gordon took various positions in India, China, and the Cape Colony. The intensely devout Gordon spent much of 1883 in Palestine, musing on the precise location of Christ's crucifixion and resurrection.

For much of the time that Gordon spent in the Holy Land, his accomplishments in Equatorial Africa and the Sudan were threatened by religious zealotry of a far different stripe. The cities of Dara and El Obeid had fallen in January 1883 to the Mahdi, a self-proclaimed Muslim prophet named Muhammad Ahmad who was gathering increasing support across northeast Africa. At the head of a massive army of dedicated Ansar, the Mahdi was already in control of western Sudan.

The British government was in a quandary. It would have preferred to abandon the Sudan and focus its energies in Egypt, which was under nominal British control following a botched internal coup. Gordon himself summed up the dilemma in an ill-advised newspaper interview. Britain "must either surrender absolutely to the Mahdi, or defend Khartoum at all hazards," he wrote. For her part, Queen Victoria believed, "Half measures are not enough."

Such views would lead the government, with notable reluctance, to dispatch Gordon to the Sudanese capital of Khartoum. The new governor-general reached his post in Sudan in January 1884. His initial orders were to establish a new government. Afterward, he was to evacuate Khartoum's large number of European and Egyptian nationals. But in a hasty conference in Cairo, his superiors granted Gordon wide discretionary authority to do what he thought was best.

Such indecision and lack of coordination was a recipe for disaster. Gordon planned to reinstate tribal authority in Sudan. In so doing, he ironically would be empowering the very slave traders that he previously had fought so hard to undermine. He tried to buy off the Mahdi by offering the prophet the sultanship of Kordofan, but the Mahdi already had conquered the region. In the deadly struggle for the Sudan, Gordon had few options.

The Mahdi grimly exploited the matter. Flush with repeated victories, his forces swelled as they moved north and east. With momentum clearly on its side, the Mahdi's army fanned out across Sudan; in the process, it slowly established a cordon around Khartoum. Incapable of evacuating the city and unwilling to abandon the civilian populace, Gordon sat tight. Enemy forces cut the single telegraph line out of Khartoum on March 12, 1884.

The residents of the city were left to their own devices. Gordon maintained hope that a

Sir Garnet Wolseley's relief expedition defeated the Mahdist Sudanese army at Abu Klea in January 1885, but Wolseley failed to appreciate the urgent need to lift the siege of Khartoum. The result was the Mahdi's brutal massacre of the garrison and 4,000 civilians.

British expeditionary force then operating in eastern Sudan would open an escape route through the city of Berber, but government officials refused to authorize such a move. Berber fell to an Ansar attack on May 26, 1884, and thousands were massacred in the ensuing chaos. Prime Minister William Gladstone was not inclined to expand the British role in the Sudan and hesitant to dispatch a relief force, but an adoring British public clamored for Gordon's rescue. Gladstone ultimately relented and ordered a relief column under the command of Sir Garnet Wolseley to march to Gordon's aid. However, such double-minded strategic procrastination ultimately doomed the inhabitants of Khartoum.

The beleaguered garrison held out for months. Rations ran short, and the desperate souls in Khartoum were reduced to eating donkeys, dogs, and rats. By the end of October, the Mahdi's forces arrived at Khartoum and besieged the city. While the noose tightened, Wolseley's relief expedition neared Khartoum. His forces clashed with the Mahdi's Ansar in the Battle of Abu Klea, fought January 17, 1885. Wolseley defeated the Mahdists in the pitched battle. Four days later, British troops caught sight of Gordon's Nile steamships. Wolseley was handed a dispatch from Gordon written in late December. It bore heartening news. "Khartoum all right; can hold out for years," wrote Gordon.

Such optimism was tragically misplaced. Rattled by the clash at Abu Klea, the Mahdi ordered an attack on Khartoum late on the evening of January 25. Taking advantage of low water in the Nile, the Ansar stormed across an exposed sandbar, taking the city from the rear while another force rushed the city gates. In a few hours of horrific night fighting, the heavily outnumbered garrison was overwhelmed and nearly all of the soldiers slain. In addition, the Mahdists massacred 4,000 Christian and Muslim civilians. Gordon, fighting furiously with a revolver, was killed and beheaded outside the governor's palace according to survivor accounts.

It was a tragic, if hauntingly appropriate, end to a man who had lived by the sword for more than three decades. Gordon persists as a curious study in contrast. He was both a fierce warrior who readily shed tears for his own men and a devout Christian. He was "a fanatical enigma," said Cecil Rhodes, the governor of Cape Colony. Such characterizations likely held little weight for the enigmatic Gordon. "I look forward to a terminus," he once wrote, "where there will be no more differences of language, where there will be one kingdom, that of Christ, and no more wars." □

By William F. Floyd, Jr.

The British raid on St. Nazaire in May 1942 damaged the port's dry dock so severely that the Germans never repaired it.

THE BRITISH FLOTILLA MOVED WITH DETERMINATION INTO THE Loire estuary after midnight on May 28, 1942. An occasional searchlight from the German antiaircraft batteries stabbed at the waters but failed to detect the stealthy ships. British bombers had dropped their bombs on the German installations at the deepwater port a short time before. Although fire from the German antiaircraft batteries eventually subsided, Captain Karl-Conrad Mecke, commander of the 22nd Naval Flak Brigade, suspected that something unusual was afoot because the bombers dropped one bomb at a time rather than their entire loads. He instructed the gun crews to remain vigilant.

A dozen German searchlights snapped on at 1:20 AM. Mecke had received a credible report that a group of suspicious vessels was in the area and ordered his men to intensify their search efforts. The Germans soon spotted the suspicious vessels. The operator of a German signal light asked the HMS *Campbeltown*, which was flying a German ensign, to identify herself. The signalman on the British destroyer responded with the call sign of a German destroyer, and the ship was allowed to proceed.

But the reprieve was short lived. Soon the air was alive with fire from the coastal defense units. German heavy guns boomed loudl,y and blue-green tracers from German machine guns crisscrossed wildly through the night sky. Lt. Cmdr. Sam Beattie of the *Campbeltown* gave orders for full speed ahead, and the vessel, which carried 9,000 pounds of explosives on a time-delay fuse, thrust forward at 20 knots. The British flotilla returned fire, and their bright orange tracers raced toward the shore in response. The *Campbeltown*'s target was the Normandie Dock, which she would reach in five minutes.

The destroyer ripped its way through the antitorpedo net stretched across the lock at 1:34 AM. The explosive-laden ship collided with the lock's steel gate with a great grinding sound. The bow crumpled and came to rest on the unmovable obstruction. Commandos aboard the *Campbeltown* and the many motor launches accompanying it leaped onto the dock. After long months of planning and training, the St. Nazaire raid had finally begun.

Searchlights sweep the night sky as the HMS *Campbeltown,* loaded with 9,000 pounds of explosives on a time-delay fuse, steams full speed ahead toward the Normandie Dry Dock on the Loire River.

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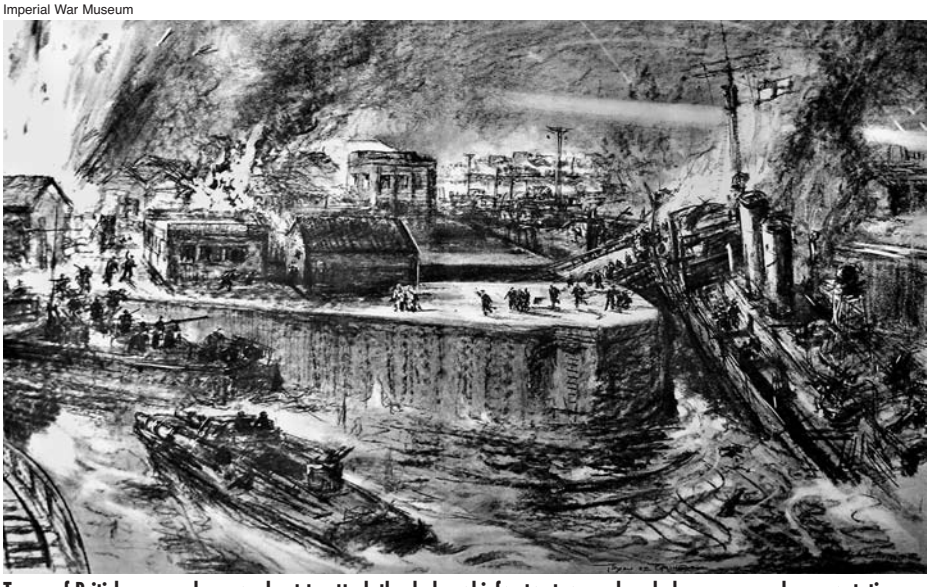


Teams of British commandos spread out to attack the dockyard infrastructure, such as locks, pumps, and power stations. They had to clear their targets of security forces manning sandbagged gun emplacements.

The Atlantic port of St. Nazaire was a dream come true for the German Kriegsmarine. The German Navy inherited the sprawling dry dock and repair facilities through its conquest of France in June 1940. The Germans began constructing submarine pens in February 1941 that were capable of withstanding Allied bombing. Sixteen months later they had completed 14 U-boat berths.

British Prime Minister Churchill and the British Admiralty were deeply concerned all the while that the Germans would be able to service the *Bismarck* and *Tirpitz* battleships at St. Nazaire and use the port as a base for raiding Atlantic shipping. Because of this, Churchill tasked British Chief of Combined Operations Lord Louis Mountbatten in January 1941 with developing plans for a seaborne commando raid that would destroy the port's infrastructure. Although the British sank the *Bismarck* in late May 1941, the British remained deeply concerned that the Germans would move the *Tirpitz* from Norway to St. Nazaire.

The basic plan for Operation Chariot, as the raid was called, was to destroy the Normandie Dock. The dry dock takes its name from the passenger liner *Normandie,* which was berthed at the dock between cruises. The French had built the Normandie Dock over a four-year period beginning in 1928. The plan called for ramming the explosive-laden HMS *Campbeltown* into the lock gates under cover of night. Accompanying the British destroyer would be two escort destroyers, 14 wooden-hulled motor launches, one motor gunboat, and one motor torpedo boat. The small boats would furnish covering fire and evacuate the raiding party. A force of 200 commandos would destroy as many of the dry dock facilities as possible in less than two hours.

The strategically important port of St. Nazaire is situated on the right bank of the Loire estuary six miles from the Bay of Biscay. The mile-wide estuary contains a deepwater channel near the north bank. The Germans had taken ample precautions to defend it.

When it became obvious to the planners that laying the charges by hand to the Normandie Dock would take far too long, they decided to ram a ship into the southern caisson. The initial plan had called for the use of two destroyers, one for the ramming and one for withdrawing the commandos, but the British Admiralty balked at using two destroyers when they could hardly spare one due to the intensity of the U-boat activity in the Atlantic Ocean.

Mountbatten fought an uphill battle convincing Royal Navy and Royal Air Force officials to commit to the plan because they regarded it as a suicide mission. The commandos would be heavily outnumbered. Combined Operations Headquarters, the department responsible for planning raids that involved combined Army and Navy forces, worked closely with multiple intelligence agencies in planning the raid.

The Naval Intelligence Division gathered information from many different sources. The Secret Intelligence Service furnished detailed plans of St. Nazaire. The War Office's Military Intelligence branch assembled intelligence on German coastal artillery. Information on the dock itself came from prewar technical journals. The Royal Navy's Operational Intelligence Center selected the best route and best time for the raid based on information on the location of minefields. The Air Ministry's Air Intelligence Division obtained information on Luftwaffe patrols in the area. Last but not least, German recognition signals were obtained from the Enigma cipher machine.

As part of the planning, technical specialists were called upon to develop detailed engineering drawings of the dock gates. Allied spies furnished invaluable information regarding the dock facilities and the adjacent submarine pens. The planners hoped to brief the commandos so thoroughly on the dry dock that they would be able to move around St. Nazaire with the same ease as the German soldiers who guarded the facilities.

A great deal of time and effort was put into preparing the *Campbeltown* for the raid. The ship was actually the USS *Buchanan,* a U.S. Navy destroyer that had been transferred to the Royal Navy through the Lend-Lease program. The *Campbeltown* was taken to Devonport, England, where shipyard personnel remodeled the ship to make it resemble a German destroyer. The workers gutted most of the interior and removed from the deck the ship's three 4-inch guns, torpedoes, and depth charges. They also cut off two of her four stacks and shortened and repositioned the remaining two stacks to better resemble a German Mowe-class destroyer. Additionally, the workers installed extra armor plating and weapons systems so the British crew could return fire if necessary.

Next, they filled each of 24 Mark VII depth charges with 400 pounds of explosives. The depth charges were encased in a steel tank and placed over fuel compartments just aft of the support for the forward gun. The tank was then sealed off with concrete. The explosive charge would be detonated by time-delay pencil fuses after the commando raid was over. The workers placed scuttling charges in the stern of the *Campbeltown* so the ship could be sunk in place, blocking the entrance to the dry dock.

Commandos from Britain's all-volunteer Special Service Brigade would carry out the demolitions work against the dock infrastructure. Lt. Col. Augustus Charles Newman was given command of the commandos. The men spent six weeks training at Cardiff, Wales, and Southampton, England. In Southampton they were able to practice at the King George V Dry Dock.

The commando teams studied the mechanics of the dockyard infrastructure, such as locks, pumps, and power stations, which they were to destroy. Although they did not practice with real explosives, their practice sessions were as realistic as possible. The goal was to teach each

team of commandos to set its explosive charges in 10 minutes or less. About half the men would be involved in setting charges, and the other half would furnish covering fire. Newman told his commandos that there was little chance that they would be safely evacuated at the end of the raid. When given a chance to back out of the mission, none accepted the offer.

A final dress rehearsal was held on March 22. From the experience, the participants realized that the German searchlights were likely to interfere substantially with the flotilla's navigation and the embarkation of the commandos. But there was really nothing that could be done about the searchlights.

The attacking force cleared Falmouth harbor at 2 PM on March 26. The flotilla consisted of the *Campbeltown,* escorting destroyers HMS *Atherstone* and HMS *Tynedale*, 14 wooden-hulled motor launches, Motor Gun Boat 314, and Motor Torpedo Boat 74. Commander Robert Ryder, who was on board the motor gunboat, was the flotilla's senior naval officer and overall commander.

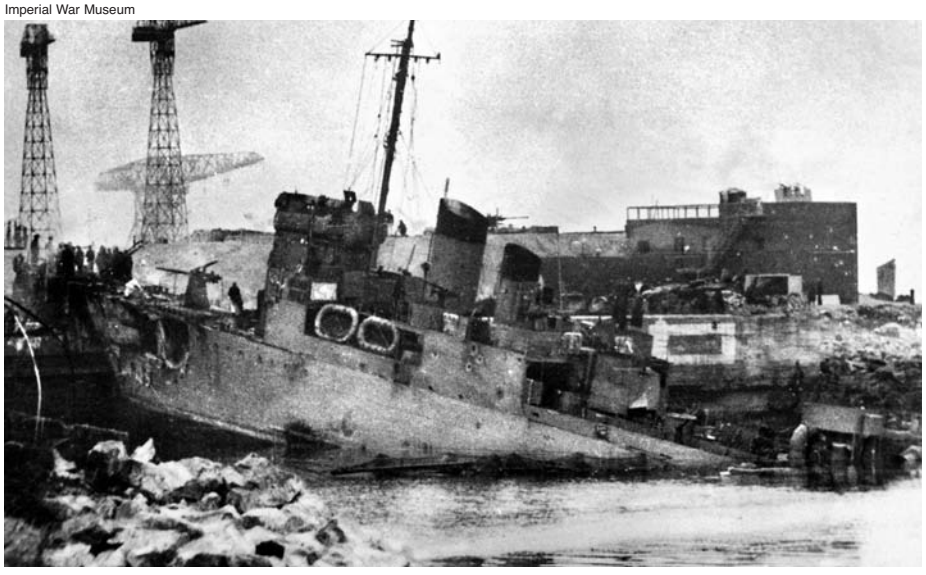
The launches carrying the commandos were Type B motor launches that were 112 feet long and 18 feet wide, displacing some 65 tons. They had a speed of 20 knots, were armed with 20mm guns, and carried a crew of two officers, 10 sailors, and 15 commandos. As they headed across the English Channel, they formed into three lanes with the destroyers in the middle lane.

The Germans had 6,000 men stationed in the area, including a brigade of the 333rd Infantry Division deployed nearby. St. Nazaire was second only to Brest in being the best defended harbor in France. German Kriegsmarine Vice Admiral Karl Dönitz had personally inspected the defenses and deemed that the Allies were unlikely to launch a limited attack from the sea. Shore batteries lined both sides of the estuary. In addition, there were searchlights and automatic weapons throughout the town and covering the approaches to the harbor.

After the *Campbeltown* crashed into the Normandie Dock caisson, three groups of commandos stormed ashore and began their mission. The groups were to carry out their destructive work as quickly as possible and then rendezvous for evacuation at either the Old Entrance, near the dry dock, or the Old Mole, a pier situated a short distance south of the dry dock.

The majority of the targets were west of the caisson. The only commandos to disembark on the starboard side were 13 men led by Lieutenant Johnny Roderick. His team was assigned to knock out three gun positions located between the Normandie Dock and the Loire. After that, the team was to set fire to the underground fuel storage tanks.

Imperial War Museum



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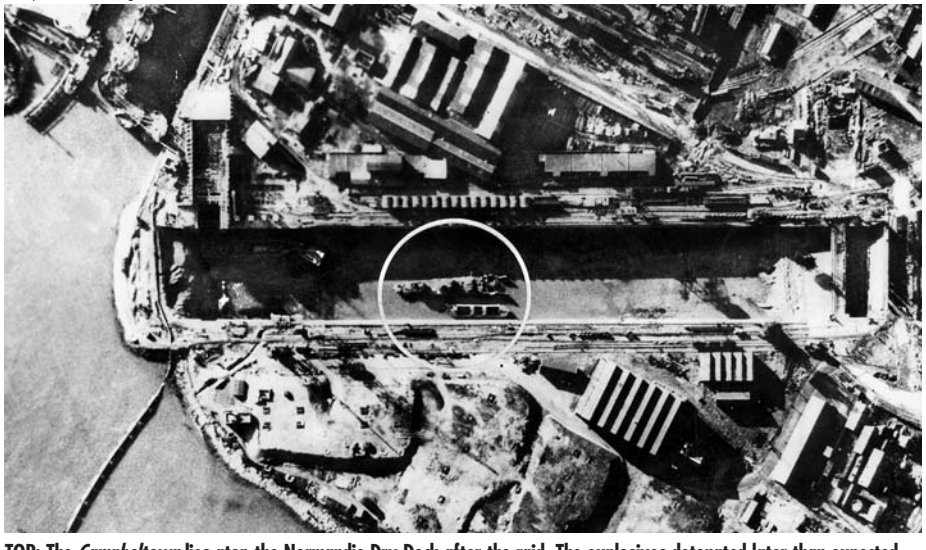


TOP: The *Campbeltown* lies atop the Normandie Dry Dock after the raid. The explosives detonated later than expected probably due to a malfunction in the detonators. ABOVE: The *Campbeltown* lies inside the Normandie Dry Dock nine months after the raid. Although the dry dock used to repair surface ships was disabled for the duration of the war, the raid did not impede the Kriegsmarine's U-boat operations from the Atlantic port.

Roderick's men, who had heavy firepower in the form of submachine guns and light machine guns, made quick work of a nearby sandbagged enemy gun emplacement before proceeding to their next target. They hurled multiple grenades to knock out a rapid-firing 37mm gun on the roof. When the occupants of the concrete bunker tried to flee, they were riddled with bullets. Roderick's team then silenced another gun and a searchlight beyond it before moving on to clear the area to the south. When his group reached the underground fuel storage tanks, they dropped incendiary charges down the ventilator shafts. For some inexplicable reason, the charges failed to ignite the tanks.

While Roderick was busy in his area, Captain Donald Roy's men had gone over the port side. Their first objective was to knock out two guns situated on top of the pump house. The German crews scattered, though, and Roy and one of his men ran up the stairs to the guns and put explosive charges on them. The team's next target was the Old Entrance Bridge, which they were to hold so that the other teams could cross on their way to the Old Mole for evacuation. Roy's commandos seized the bridge and established a defensive position at the north end, covering all approaches to the bridge. They soon came under fire from enemy ships and from German troops on the roof of the U-boat pen. The plan had been for Roy's commandos to withdraw from the

Continued on page 70

MASTERSTROKE

Emperor Napoleon achieved a decisive victory over Count Bennigsen's Russians in June 1807, thereby redeeming the Grand Armee after its setback at Eylau.

BY COLEY COWAN

Art Gallery of New South Wales/Google Art Project

FRIEDLAND WAS BURNING. The darkening sky of late afternoon on June 14, 1807, was deepened further by the ashes swirling in the narrow streets. Houses collapsed, burning those who sought shelter inside. Artillery fire added to the macabre scene, a growing crescendo of sound and fury.

The Russian Army was in grave peril. General Count Levin Bennigsen, its commander, had to try to stem the growing crisis. The French advance threatened to trap his men and cut off their retreat to the relative safety of the right bank of the Alle River. He still had a strong reserve made up of the finest troops in Russia. The soldiers of the Tsar's Imperial Guard, dressed in their tall caps, were the darlings of St. Petersburg. Perhaps they could redress the balance. The French, deep in Poland, would have difficulty retreating from their advanced position. The Russians had rattled the French at Eylau four months earlier amid swirling snow, which had boosted the Russians' confidence. Perhaps the Russians could swing the tide of battle in their favor despite the late hour of the day. The Russian troops advanced in serried ranks with red flames flickering on their bayonets. The French troops met them with cold steel. This last clash of the day would decide whether the Russian Army would survive what seemed to be its imminent destruction.

Napoleon's latest campaign had its antecedents in the War of the Third Coalition of 1805-1806. Austria, Russia, and various minor powers had joined Great Britain in making war on the newly created French Empire. Napoleon had thoroughly trounced those two powers in the Ulm-Austerlitz campaign in which he accepted the Austrian surrender at Ulm. Afterward, Napoleon crushed Tsar Alexander's Russian army at Austerlitz. Austrian Emperor Francis II was forced to make peace, and the Russians withdrew to their homeland.

Prussia had done little in support of the Third Coalition. Prussian territory had been violated by French troops, and they were preparing to issue an ultimatum when Austerlitz was fought. The diplomats soon changed their tune and agreed to a treaty of friendship with the French emperor. The Prussians believed that they would receive Hanover, which had been owned by Great Britain, in return for their neutrality. Their troops occupied it in early 1806.

However, during negotiations with Great Britain, Napoleon offered to return Hanover to the English in return for peace. This brusque, casual, and rather humiliating treatment created a furor in Prussia. A war party quickly called for action against Napoleon. A few nobles went so far as to sharpen their swords on the steps of the palace in Berlin to show their readiness to take on the "Corsican ogre."

In August 1806, Prussia began to mobilize. Russia had never made peace with Napoleon. Still smarting from the humiliation of Austerlitz, the Russians agreed to join in the campaign against Napoleon. The Prussians were supremely confident in their own military prowess. They began the campaign on their own, attacking without waiting for Russian support; after all,

The 4th Hussars of the French reserve cavalry charge shouting, "Vive l'Empereur!" Marshal Jean Lannes's reserve corps fought a holding action throughout the morning of June 14 to buy time for the French army to concentrate.

AT FRIEDLAND

they were the heirs of Frederick the Great. Victory was a foregone conclusion, or so they thought.

Unfortunately, there was a new master of warfare on the European continent. During the four years of peace on the Continent leading up to the War of the Third Coalition, Napoleon had organized and drilled his troops to a degree of perfection they had not known before. They became skilled in the use of line, column, square, and skirmishing. Additionally, they had learned how to form into a "mixed order" whereby two or more companies or battalions deployed in a combination of line and column formations at the same time. These were complicated maneuvers, and they would make a difference against less trained foes.

Napoleon also took steps to improve the French cavalry, and he expanded and standardized the French artillery. He established the corps d'armee, a combined arms force of infantry, cavalry, and artillery. This force, which ranged from 25,000 to 35,000 men, could march on its own and delay a larger force until help arrived. When multiple corps concentrated for battle, they could take on the enemy's main army or destroy a smaller force. Moving along separate roads, they could confuse and ensnare a foe, bringing on battle before an enemy really knew what was happening.

Napoleon used this new tool against the Prussians to good effect. His counterblow came much sooner than the Prussians expected. On October 9, 1806, a Fourth Coalition replaced the previous one, and Prussia and Russia quickly mobilized for a new campaign against the French. The French Army's new corps system showed its power on October 14, 1806, as Napoleon concentrated to destroy a Prussian force at Jena. Meanwhile, Marshal Louis Nicholas Davout, with only a single corps, defeated the Prussian main army at Auerstadt the same day. The French occupied the Prussian capital shortly afterward. The Prussian Army disintegrated and subsequently surrendered in large numbers to the French. Even the aging Marshal Gebhard Leberecht von Blucher, a vociferous enemy of the French, was forced to lay down his arms at Lubeck on November 7. A single Prussian corps escaped the disaster and joined the Russians in Poland. But trouble was brewing for the French.

Wikipedia

ABOVE: The French vanquished the Prussians at the double battle of Jena-Auerstadt in October 1806. Afterward, Napoleon rested his army and consolidated his position before engaging the Russians. OPPOSITE: Russian Imperial Guard cavalry attacks at the Battle of Guttstadt-Deppen before Friedland. General Count Levin Bennigsen saw an opportunity to isolate and destroy Marshal Michel Ney's exposed corps, but Ney slipped through the trap.

Poland proved an inhospitable area in which to campaign. The rapid onset of inclement weather turned the region's roads into muddy quagmires that slowed French movement. As if this were not bad enough, Napoleon faced great difficulties keeping his troops supplied. The Grand Armee had always lived off the land. In the rich agricultural areas of Germany and northern Italy, this had been a relatively easy undertaking, but in the sparsely populated regions of Poland it quickly became a nightmare.

The French troops soon became sullen and in some cases nearly mutinous. Hundreds of stragglers and marauders clogged the rear areas of the Grande Armee. There were few shouts of "Vive l'Empereur." The hungry soldiers instead grumbled and cursed. "Where is our bread," they said whenever Napoleon rode past them.

Napoleon did try to block the retreat of his Russian enemies and force them into battle on his terms, but the deteriorating weather slowed the French as they maneuvered against the Russians. The Russians escaped the intended traps and withdrew without disaster. The French did manage to stagger into Warsaw on November 28, 1806, but after yet more indecisive maneuvering Napoleon was finally forced to face reality. He ordered his troops into winter quarters to rest and reorganize. The campaign resumed briefly in January and February 1807; however, the outcome did not alter the strategic balance.

Sexagenarian Count Levin Bennigsen led the Russian Army in the field. The Russian commander decided to maneuver to crush an isolated French corps under Marshal Michel Ney. But while doing so, he marched across Napoleon's front and exposed his own flank. Napoleon was not likely to miss this opportunity, even if he was in winter quarters. The French again failed to bag the Russians as orders were lost and the troops marched too slowly in the February weather. The French wound up fighting a frontal engagement and began the main action outnumbered.

The Prussians delivered the first check to Napoleon's unvarnished string of victories. The two sides were evenly matched. In the slaughter that ensued over a two-day period, each side suffered heavy losses. Although the Russians retreated, they had fought Napoleon to a standstill. Napoleon claimed a victory, but in reality the outcome was a draw. The French did not pursue the retreating Russians, and Napoleon ordered his men back into winter quarters. Napoleon had lost his momentum, and the vaunted Grand Armee had ground to a halt.

Napoleon spent the next several months revitalizing and refurbishing the French Army. New troops, both French and foreign, were called up, including some Polish troops. France had a long history of supporting Poland as a check to Russian expansion. When France had been distracted by the early stages of its revolution, Russia, Prussia, and Austria had pounced on Poland, carved it up, and eliminated it as a sovereign nation. Napoleon hinted at a return to the traditional French policy. The Poles might regain their independence; however, they would have to fight for it. The Poles responded, and new troops poured in. The Poles would remain some of Napoleon's most loyal supporters throughout his rule.

Other improvements were made as well. New horses were brought in for the cavalry, artillery,

and trains. These were mostly purchased or stolen from the conquered Prussians and were much stronger than the previous stock. Napoleon ordered new magazines and depots established and better rations distributed to the men. He also replenished the French frontline formations with new conscripts and troops culled from the army of Italy and scattered French garrisons. These forces were sent to guard the Grand Armee's flanks and to monitor Austria in case the Austrians tried to make trouble while the French were distracted.

The French also cleared the city of Danzig, laying siege to and taking that port. This freed up troops for action, added a port for supplies, and simplified French lines of communication. The supply situation was much better, or at least about as good as it got in the imperial army. A new Grande Armee numbering 200,000 men was ready for campaigning by June.

For their part, the Russians had not been nearly as active as Napoleon. Tsar Alexander sent Bennigsen 10,000 reinforcements in March, which arrived at the front organized in new regiments. When campaigning resumed in June, 30,000 more Russian troops were on their way to the front but had not yet arrived. The Prussians, with most of their country occupied, were unable to furnish additional troops. At the beginning of June, Bennigsen had 115,000 men under arms. Rather than wait for the additional troops to arrive, he resolved to attack.

The Russian offensive opened on June 4. The Russians again hoped to annihilate an isolated French corps—their target was Ney. However, Bennigsen's plan was overly complicated. He intended for six separate columns to attack simultaneously, but poor coordination forced a halt to the offensive by June 6, and the Russians began a retreat. Sensing an opportunity, Napoleon sought to envelop the Russian Army. On June 10, Napoleon ordered an attack against what he believed was the Russian rear guard at Heilsberg, but it turned out to be the main Russian force. Napoleon arrived in mid-afternoon to find Marshals Joachim Murat and Jean-de-Dieu Soult heavily committed despite his orders not to bring on a major engagement. The Russians used Heilsberg as an operational base, and for that reason it had strong fortifications. French infantry and cavalry attempted to carry Russian earthworks around their encampment. The Russians withdrew, but not without inflicting heavy casualties on the French.

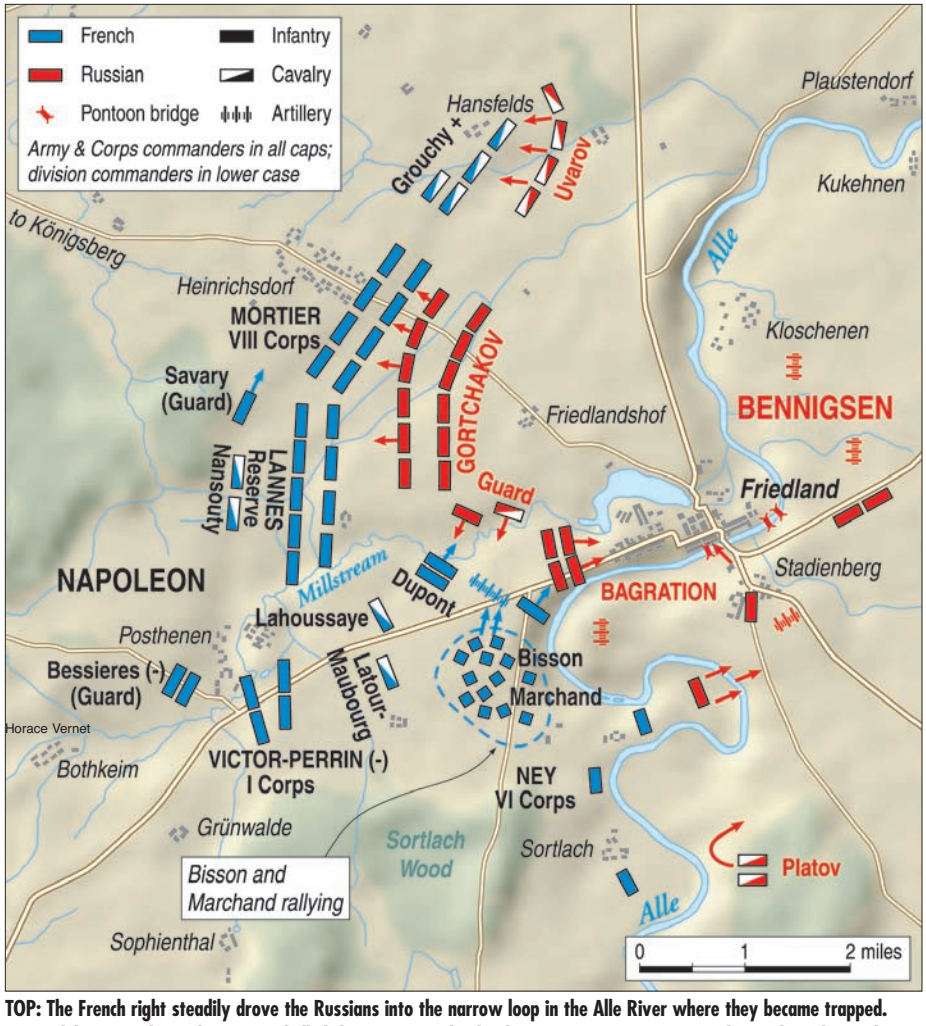
At that juncture Napoleon made a serious mistake. He was torn between the objectives of Konigsberg, the main allied base, and Bennigsen's army. He eventually resolved to pursue both objectives. Napoleon directed Murat, with a force of 60,000 men composed of Murat's cavalry and the corps of Soult and Davout, to march against Konigsberg. Napoleon ordered Marshal Jean Lannes to the small town of Friedland, where a bridge spanned the Alle River, to watch the river crossing. Napoleon, who retained the Grande Armee reserves, positioned his force at a midway point ready to reinforce either wing. He hoped that the pressure on Konigsberg would force the Russians to battle. The French emperor's forces were badly dispersed, though. The two wings of his army were some 50 miles apart.

Bennigsen was unable to resist the temptation offered by Lannes's lone corps. By that time Bennigsen's army was down to 60,000 men as a result of battle attrition and the dispatching of a large number of reinforcements to Konigsberg. Still, he attacked in the hope of wiping out Lannes's 26,000 men before Napoleon could react. Bennigsen reached the Alle River at Friedland late in the evening of June 13 and immediately ordered his men to build pontoon bridges across the river.

The terrain around Friedland is gently rolling and open. At the time of battle the fields were planted with rye and wheat. The village was situated on the left bank of the Alle River, where it was tucked into a loop in the river. The Millstream, a tributary to the Alle, bisected the ground where the battle would be fought and also enclosed Friedland on its north side. Thus, the town was surrounded on three sides by water, to the south and east by the Alle and to the north by the Millstream.

The plains stretched west of the town for two miles before reaching a slight crest running north to south between the two small villages of Posthenen and Heinrichsdorf. A wooded tract known as the Sortlach Wood lay south of Posthenen. More woods lay to the west and north-

Map © 2017 Philip Schwartzberg, Meridian Mapping, Minneapolis, MN



TOP: The French right steadily drove the Russians into the narrow loop in the Alle River where they became trapped. Meanwhile, massed French cannons shelled the Russians relentlessly. OPPOSITE: Emperor Napoleon salutes his 12th Cuirassier Regiment as they charge the Russians.

west of Posthenen.

Lieutenant General Prince Andrei Gallitzin led the vanguard of the Russian Army across the Alle River to the west bank at 6 PM on June 13. He ordered his cavalry to attack Colonel Pierre-Edme Gauthrin's 9th Hussar Regiment posted in the town. The Russian cavalry, supported by artillery, succeeded in driving off the French. Gallitzin's cavalry halted near Posthenen and Heinrichsdorf, establishing a protective screen for the Russian infantry that began to arrive behind them.

Lannes also was hurrying his forces forward as rapidly as possible. By 3 AM on July 14, he had deployed upwards of 12,000 men consisting of two infantry divisions, his own cavalry corps, and General Emmanuel Grouchy's dragoon division. Lannes sent two battalions into the Sortlach Wood to act as skirmishers in anticipation of an attack from that direction. He posted the bulk of his infantry on the ridge near Posthenen.

Skirmishing began at about 3 AM, growing in intensity as the hours passed. The Russian cavalry outposts were driven in, but the French were too weak to follow up these initial successes. About 5 AM the French tried to do so, pushing east against the squadrons of Maj. Gen. Alexei Kologribov from Posthenen.

But Lannes's troops were badly outnumbered and in serious danger of being overwhelmed. The arrival of a division of dragoons from Marshal Edouard Mortier's VIII Corps prevented them from being routed.

With the crisis on the French right in hand, a new one developed on the left. Lt. Gen. Fyodor Uvarov, who commanded the cavalry on the extreme Russian right flank, was pressing the Russian attack against the village of Heinrichsdorf. Contesting the advance were French dragoons and hussars commanded by General Grouchy and General Etienne Nansouty's cuirassiers. They streamed through the fields and engaged their Russian counterparts. The weight of the French cavalry attack stabilized the French left flank.

Bennigsen might have misjudged French strength. Lannes deployed a thin line of skirmishers on his front, which maintained a steady harassing fire against the enemy. He used this cover of fire and smoke, as well as the tall rye and wheat and slight irregularities in the terrain, to shift columns of troops to various sectors. This may have led the Russians to believe they were facing a much larger force.

Bennigsen was having considerable problems deploying his troops for battle. His pontoon bridges led directly into the town of Friedland so that his troops had to march through narrow streets and along the narrow strip of land beyond it before deploying for battle. Bennigsen also had noticed the problem the Millstream posed to the movement of his troops. Although not a major obstacle for his infantry, which could scramble through the steep-banked stream, the Millstream presented a major obstacle to cavalry and artillery. He therefore ordered his pioneers to construct four bridges across the Millstream to improve the link between his two wings.

But the Millstream would continue to pose a problem despite the pontoon bridges. The stream divided Bennigsen's army into two separate forces. Four infantry divisions under Lt. Gen. Andre Gortchakov were deployed north of the Millstream along with the bulk of the Russian cavalry under Gallitzin and Uvarov. Deployed south of the Millstream were two divisions of infantry under Lt. Gen. Peter Bagration, one of the Russian Army's best generals, and Kologribov's cavalry. Bennigsen eventually would have 46,000 of his approximately 60,000 troops on the left bank.

Although Lannes was in constant communication with Napoleon and knew that all available troops were moving as rapidly as possible to the battlefield, he was still heavily outnumbered. Lannes had only 9,000 infantry on hand, even though additional cavalry had raised his strength to 17,000 men.

Bennigsen ordered a general advance at midmorning. He made two main efforts. The first effort was to advance the troops of his left wing against the enemy in the Sortlach Wood. The second was on his right wing against Heinrichsdorf. Among the attacking Russian forces were elite jaegers who were specifically trained in light infantry tactics. However, the French excelled at this type of fighting. The battle swayed back and forth as light infantry on both sides fought tree-to-tree in the Sortlach Wood. By late morning, though, the greater Russian numbers began to make a difference.

The situation on the French left also was

deteriorating rapidly. Uvarov's fearless Cossacks rode north around Grouchy's cavalry to strike at the French left flank and rear. At the same time, Gallitzin's heavier cavalry force engaged the French cavalry from the front. The beleaguered French cavalry on the left wing was once again in danger of being overwhelmed.

Fortunately for the French, reinforcements—General Claude Victor-Perrin's I Corps, Marshal Mortier's VIII Corps, and the vanguard of Marshal Ney's VI Corps—tramped onto the field of battle. The reinforcements consisted of . The dashing General Auguste Colbert immediately committed his chasseurs and hussars against the Russian Cossacks and cuirassiers. While the cavalry battle swirled, Mortier's veteran infantry reached Heinrichsdorf just ahead of the Russian infantry.

Bennigsen's attack had stalled by 10 AM. Lannes's final division also had arrived on the field, and the French marshal was able to feed more troops into the Sortlach Wood to check Bagration's attack. Lannes had skillfully defended his position at Friedland long enough for the French to concentrate. In so doing, he had ruined Bennigsen's chance for a quick victory.

A lull settled over the field in the late morning as Bennigsen pondered his next move. Napoleon and his staff arrived on the field at 12 PM and took control of the battle. His arrival marked the second phase of the battle. The French emperor spent the early afternoon building up his forces and studying the terrain from a position near Posthenen through his spyglass.

Long columns of French troops continued to arrive. Napoleon ultimately would have 80,000 men, which would give the French a significant advantage in numbers. Grouchy's cavalry anchored the left flank. To Grouchy's right was Mortier's VIII Corps with its left covering Heinrichsdorf. Lannes' Reserve Corps was to the right of Mortier and situated north of Posthenen. Ney's VI Corps held the right. Behind the French right were stationed Victor-Perrin's I Corps and Marshal Jean-Baptiste Bessieres' Guard Corps.

Napoleon studied the terrain carefully and developed his plan based on his observations. He noted that Bennigsen's position was a precarious one because his troops had their backs to the river and his four-mile-long battle line was bisected by the Millstream. Napoleon knew that Bennigsen would not be able to reinforce one wing with forces from the other wing.

The French emperor could scarcely believe his good fortune. A few of his staff officers suggested that he should postpone his attack until the next day, but the emperor knew that opportunities such as the one before him seldom came along and that he must take immediate advantage of the situation.

Napoleon decided to target the Russian forces south of the Millstream for the initial attack. Ney's VI Corps would spearhead the attack with Victor-Perrin's I Corps following it into battle. Their objective was to seize Friedland and the vital bridges over the Alle River. To do so, they would force the Russians back into the right angle where the Millstream joined the Alle River. Once the marshals had achieved these objectives, Lannes's Reserve Corps would finish off the Russians that were bottled up in and around Friedland.

What Bennigsen intended to do is unclear. He could see the columns of French reinforcements arriving on the field, but he might not have known that Napoleon had assumed command. The Russian commander shortened and strengthened his line. He probably intended to withdraw his troops to the east bank of the Alle after nightfall. He needed at least five hours for such a movement, and it was unlikely that the aggressive Grand Armee would allow a retreat without trying to disrupt it.

But he never got the opportunity. Napoleon ordered 20 French cannons to fire several salvos in rapid succession at 5:30 PM as a signal to Ney to advance. Ney's troops swept forward against Bagration's corps. Initially at least, the fight on the Russian left was equally matched.

Ney's two divisions advanced with confidence. General Baptiste Bisson's troops advanced on the left, and General Jean-Gabriel Marchand's troops moved forward on the right. The formations swept through the Sortlach Wood, driving the startled Russians before them.

Bagration, who was hoping to exploit the gap between the two French divisions, ordered a cav-

Ernest Meissonier, Metropolitan Museum of Art

alry charge against Marchand. Lt. Gen. Aleksey Kologribov's cavalry charged toward the gap, but General Marie Latour-Maubourg's cavalry intercepted them, avoiding a possible disaster.

Yet a more perilous problem arose for the French. Bennigsen had placed his long-range artillery on the right bank of the Alle. He ordered his heavy guns to pour a deadly fire into Ney's ranks. At the same time, Bagration's field artillery blasted Ney's forces at close range. Ney's troops could take no more, and they recoiled in the face of the thunderous shelling.

Fortunately, Napoleon had taken steps to avert disaster. He sent General Pierre Dupont's division of Victor-Perrin's I Corps to support Ney's attack, which checked the Russian cavalry. Latour-Maubourg once again ordered his cavalry to charge, and they stopped the Russians cold.

With disaster narrowly averted, Ney and others took steps to ensure their victory. Ney rallied his battered divisions and directed his artillery crews to destroy the Russian batteries across the river. The superior French artillery soon silenced the Russian guns.

At the same time, an obscure French artillery officer was doing his part to wreck the Russian Army. Thirty-eight-year-old Brig. Gen. Alexandre Senarmont had served with the revolutionary armies in northern France. He had proved himself fighting under Napoleon at Marengo in 1800 and in the Jena and Eylau campaigns of 1806.

Senarmont was the artillery commander for Victor-Perrin's I Corps. He initially moved forward 12 guns to support Dupont's infantry but soon realized that this was not sufficient for the task at hand. He increased the number of guns brought forward to 30, which he organized into two batteries. As they went into action, Senarmont ordered the batteries moved forward in regular intervals. The guns unlimbered 1,600 yards from the enemy but eventually advanced to within 120 yards of Bagration's infantry.

Senarmont kept them at that distance for 25 minutes. The smoking guns poured canister fire at close range into the mass of Russian infantry in front of them. Senarmont's guns killed or wounded upward of 4,000 Russians. In the face of such firepower, Bagration's line melted away.

Clockwise from top left: General Pyotr Bagration, General Count Levin Bennigsen, Marshal Michel Ney, and Marshal Jean Lannes.

Russian cavalry tried to overrun Senarmont's artillery by attacking its flanks, but a skillful change of front followed by a well-timed salvo repulsed the Russian cavalry. It joined Bagration's infantry, which was streaming in disorder into Friedland just as Napoleon had intended.

The confusion on the Russian left was captured in an account by Major Reinhold von Vietinghoff, who commanded a Russian cavalry squadron south of Friedland. He went forward at 6:30 PM into the storm of French artillery fire generated by Senarmont's guns. A staff officer ordered the regiment to which Vietinghoff's squadron belonged to charge a French battery, but in the smoke and confusion of battle neither the officer who gave the order nor anyone else knew where the battery was situated. The Russian cavalry regiment charged anyway. Instead of attacking their objective, the cavalrymen rode down a battalion of Russian infantry. The horsemen retired to their former position, where they were exposed to the withering fire of the French guns. Fearing that the men in his squadron might flee their position, Vietinghoff placed an officer behind each file with orders to saber any trooper who tried to flee. The enemy fire was so intense that Vietinghoff felt "as if he stood before an immense bake oven."

While Senarmont was shredding Bagration's troops with his close-range artillery fire, Ney reformed his corps for a fresh attack. With the assistance of Dupont, Ney drove the confused Russians into the narrow peninsula between the Millstream and the Alle River where Friedland was situated.

At this point, Bennigsen ordered Gortchakov to attack the French right in the hope that it would distract Napoleon and stabilize the situation. Gortchakov hurled his divisions, which were deployed north of the Millstream, against the French left held by the troops of Lannes, Mortier, and Grouchy. Napoleon hardly seemed worried by the threat, but he did send his Guard cavalry and General Anne-Jean-Marie-Rene Savary's brigade of fusiliers of the Guard to reinforce his left wing. The Russian counterattack had no effect whatsoever on the momentum of the attack being carried out by the French right wing. Bennigsen might have been better served trying to shift some of the forces from his right wing south across the Millstream to reinforce his crumbling left wing.

By 6:30 PM, the Russian Army was facing total disaster. The French gunners began lobbing shells into Friedland, setting its wooden buildings afire. The fire spread to the pontoon bridges over the Alle River, rendering all but one unusable. The lack of pontoon bridges meant that many of the Russians on the left bank of the Alle would have no way to get across the river to safety.

Ney reformed his divisions in preparation for an attack into Friedland in which the French would drive the demoralized Russians into the Alle River. Bennigsen countered by ordering a bayonet attack against Ney's right flank to no avail. Ney's troops, which appeared unstoppable at that point, succeeded admirably in their objective, and Friedland was in French hands by 7 PM.

At that point, it was time to sweep the remaining Russian forces from the battlefield. Napoleon ordered Lannes and Mortier forward. Gortchakov's right wing collapsed entirely. Dupont, who had led his troops across the Millstream, fell upon Gortchakov's left flank, and Russian resistance crumbled.

One key development saved a significant number of Gortchakov's troops. Some of his men, who were desperate to find a way across the Alle, discovered a ford near the village of Kloschenen north of Friedland. The ford was suitable both for men and limbered artillery. They established a strong rearguard, which they bolstered with artillery, and survivors streamed through the shallow water to the safety of the right bank. The French did not take many prisoners that day. The Russians chose to either die fighting or try to escape across the Alle River.

For the failed pursuit of the Russians, General Grouchy bears a large portion of the blame. He commanded 40 squadrons of cavalry on the French left flank that day. Facing him was a much weaker force of 25 Russian squadrons, some of which were Cossack cavalry of questionable value in a pitched battle.

Napoleon typically administered the coup de grace to his enemy with a great cavalry charge that smashed enemy infantry formations; how-

Averyanov Alexander

Marshal Michel Ney rallies his troops to continue their steady advance against the Russian left. By 8:30 PM. Ney's troops had entered Friedland.

ever, Grouchy failed to launch such a charge. The reasons for his failure are unclear. He claimed he had no orders, even though Napoleon had issued succinct orders. "General Grouchy's dragoons ... will maneuver so as to inflict the greatest possible harm on the enemy when he feels the necessity to retreat," wrote Napoleon.

In addition to Napoleon, who had crafted a masterful plan upon arriving on the battlefield at midday, several of the French commanders contributed substantially to the victory.

Lannes conducted a superb delaying action waiting for the French forces to converge on Friedland. Dupont had done an exemplary job supporting Ney, and he also had shown great initiative in pressing the attack against the Russian left as it retreated.

Senarmont also had a hand in the French victory. He had shown that it was possible to use artillery as an integral part of an attacking force rather than merely as support for an infantry assault. Without his timely support, Ney's assault against the Russian left might well have failed.

After Friedland, the massed battery became a feature of Napoleon's battles, such as Wagram in 1809 and Lutzen in 1813, but even Napoleon did not use artillery as radically as Senarmont. For his valor and ingenuity, Napoleon made Senarmont a Baron of the Empire.

The French suffered approximately 8,000 casualties. In contrast, the Russians lost 20,000 men and 80 guns. Alexander decided two days later to request an armistice. The French accepted the request on June 19. Having just won a decisive victory, Napoleon was in an excellent position to negotiate favorable terms.

"I hate England as much as you," Alexander said at the outset of his July 7 meeting with Napoleon on a raft moored in the middle of the Niemen River. "Then peace is already made," Napoleon replied. Napoleon and Alexander inked the first of the two agreements that became known as the Treaties of Tilsit on July 7.

Napoleon and Tsar Alexander agreed to a defensive alliance and to assist each other in negotiating peace with other antagonists. In the treaty Napoleon agreed to assist Russia in negotiating with the Turks, and Alexander returned the favor by agreeing to assist the French in negotiating with England. If the negotiations with England broke down, Tsar Alexander was willing to join Napoleon in banning British trade in his territories. One of the outcomes was that the French agreed to support Russia in its efforts to expand into Finland and the Ottoman Empire.

Tsar Alexander abandoned the Prussians to whatever fate Napoleon had in store for them. The second agreement that came out of Tilsit was the treaty between France and Prussia signed July 9. In the one-sided treaty, Napoleon took part of Prussia's territory, forced Prussia to pay an indemnity, and limited the size of Prussia's army. The treaty also called for the establishment of a semi-independent Polish state, the Grand Duchy of Warsaw, with the King of Saxony at its head. This rewarded the many Poles who had served with Napoleon's army and enabled the French to establish a garrison in the duchy that served as a frontier outpost to monitor Russian military activity.

Although the Russians were able to confirm their sphere of influence in Eastern Europe, the rest of Europe was largely left to Napoleon. With Prussia humiliated and the Holy Roman Empire abolished, Napoleon reigned supreme in Germany. The French incorporated the majority of Prussia's lost territory into the newly established Kingdom of Westphalia. Napoleon's youngest brother Jerome was crowned King of Westphalia on July 8, 1807.

The French citizens embraced the treaty. They had grown weary of 15 years of war. The victory at Friedland and the ensuing peace of Tilsit saw Napoleon at the height of his power. In the wake of the victory at Friedland, the French Empire extended from France through central Europe to the Vistula River in Poland.

Tsar Alexander was not as popular with his people when he returned to St. Petersburg. His nobles were displeased with the loss of British trade. What is more, Russian prestige throughout Europe plummeted. The Napoleonic Wars were far from over. The two great powers, France and Russia, would clash again in 1812. □

In the autumn of 1944, the U.S. First Army was chewed up in the Hürtgen Forest where it had to contend with well-executed counterattacks by the Germans. **BY RAYMOND E. BELL**

ullstein bild

HELL IN A DARK WOOD

AT THE TOWN OF SCHMIDT in the Hürtgen Forest, it was hard to see through the thick mist and steady drizzle on the cold and damp morning of Saturday, November 4, 1944. Bomb craters filled with rainwater dotted the bleak landscape. The spongy ground sucked at soldiers' boots, and thick mud clung to their leggings and pants, adding to the misery of fighting in the woods in the rain with little sleep.

Suddenly, rounds from German howitzers whooshed downward and slammed into the ground, causing it to shake like an earthquake. For the next half hour, the Germans pummeled the town with their heavy artillery. When the big guns stopped, the American riflemen heard the clanking of tanks. The woods were soon alive with German infantry. The deadly krump of mortars and the chatter of machine guns filled the air.

GIs armed with bazookas tried in vain to stop PzKpfw.IV and PzKpfw.V Panther tanks. Their shells bounced harmlessly off the steel monsters. The tanks roamed at will through the town, hunting Americans in houses or in foxholes. "The tanks ... had smashed through the two forward company positions and broke them all to hell," said Captain Guy T. Piercey, commander of a weapons company. "The situation was bad."

Overwhelmed by the Germans' staggering firepower some of the GIs fled from their positions at 8:30 AM. Ninety minutes later, the rest of the 3rd Battalion, 112th Infantry Regiment quit Schmidt. They disappeared into the forest leaving their dead and wounded to the Germans.

The German counterattack at Schmidt was indicative of the setbacks Lt. Gen. Courtney H. Hodges' First Army experienced in the Hürtgen Forest from mid-September 1944 to early February 1945. The story of the battle begins just before the capture of Aachen, the first large city in Germany to fall to the Americans. Maj. Gen. Maurice Rose's 3rd Armored Division had advanced in September into the Stolberg corridor between Aachen and the Hürtgen Forest, putting the Allies within 20 miles of the Rhine River.

The division's right flank came to rest on the

American riflemen of the 28th Infantry Division advance cautiously through the Hürtgen Forest. The Germans benefited substantially from the superb cover offered by the close-packed trees and tangled undergrowth. OPPOSITE: The German infantry had heavy firepower as shown by these camouflaged troops armed with assault rifles and panzerfausts.

northwest rim of the forest. On September 13, the division made an incursion into the forest in the vicinity of the town of Roetgen. The crack armored division, however, was pointed to the east beyond the Siegfried Line, or the West Wall as the Germans called it, so it did not become embroiled in the forest. As the division advanced, it also took the small villages of Schmidthof, Rott, and Brandt peripherally located on the Hürtgen Forest's northwestern edge. As a result of the division's eastward attack, the incursion was a brief encounter with a dense evergreen forest that soon completely thwarted the troops of Hodges' First Army.

On its way to the Battle of Aachen, Maj. Gen. Clarence R. Huebner's vaunted 1st Infantry Division had encountered the German defenses on the northwestern fringes of the Hürtgen Forest. Division troops attacked Aachen from the south, which resulted in limited contact with the foreboding woods as they advanced north to encircle the city. Just like the 3rd Armored Division, it was to be saved the agony of the forest and its elaborate defenses, but it suffered nevertheless. The 1st Infantry Division, though, was not to see the last of the forest.

There were two striking characteristics about the forest battle. The first was the nature of the woods and the German defenses inside the woods. The second was the complete inability of Hodges and First Army Headquarters to appreciate the challenges of fighting in such an environment. First Army troops would have a horrific experience in the front line in the woods, while the headquarters staff reamined in comfort, removed from the intense fighting and great suffering.

The Hürtgen Forest is actually three woods: Wenau, Hürtgen, and Rotgen. The dark evergreen forest lies on the border of Belgium and Germany and astride the West Wall. It occupies a 50-square-mile, triangle-shaped area bounded by the towns of Aachen, Duren, and Monschau. Two ridges are angled southwest to northeast through the forest toward the Roer River. The village of Hürtgen is located on the northern ridge, while the town of Schmidt is situated on the southern ridge. Between them the Kall River flows through a forbidding gorge. The ridges were bare of

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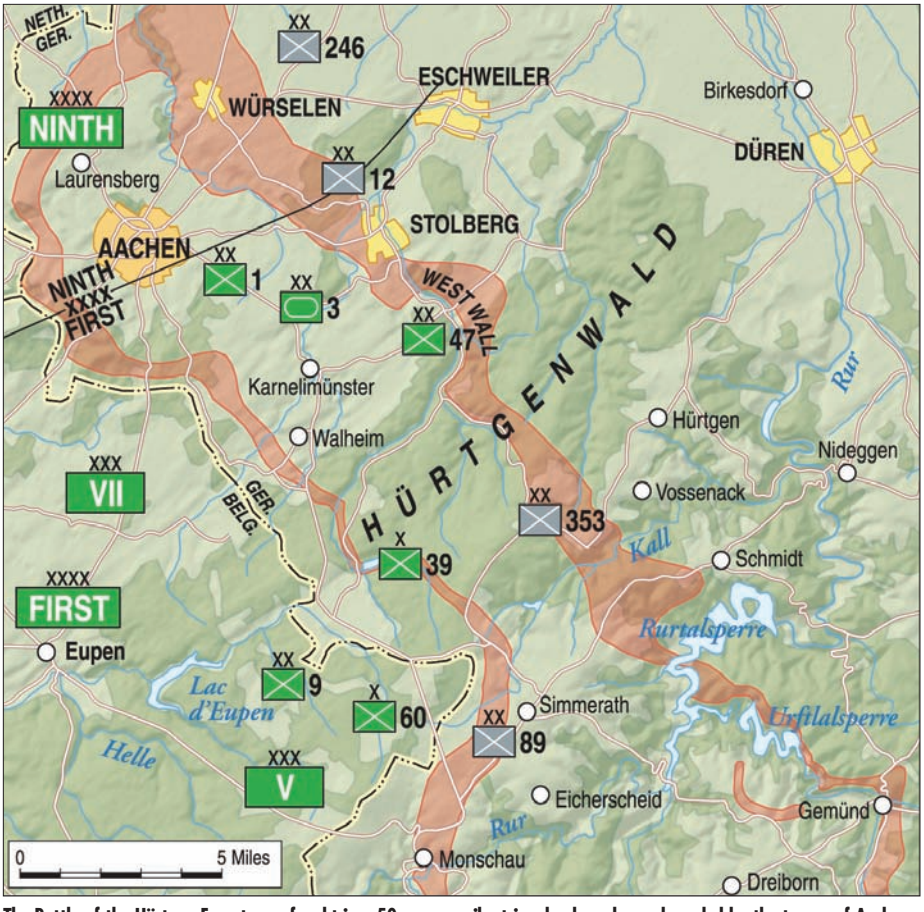

The Battle of the Hürtgen Forest was fought in a 50-square-mile, triangle-shaped area bounded by the towns of Aachen, Duren, and Monschau. The dense woods negated the advantages the Americans enjoyed in mobility, firepower, and technology when fighting in open terrain.

trees, which made them good places for artillery and for monitoring enemy movements at lower elevations. The dense woods would negate the advantages the Americans enjoyed in mobility, firepower, and technology when fighting in open terrain.

At the outset of the prolonged battle, the dense forest canopy immediately caused orientation problems for the Americans. The U.S. combat units entering the forest had few maps of the woods; those they did have were in German and were difficult to interpret. From an aerial point of view, it was confusing to orient those existing maps with the ground configuration. This had an adverse effect not only on the provision of close air support but also on field artillery attempting to respond to requests for fire support. The absence of distinguishable land forms in the Hürtgen Forest made it nearly impossible for spotter aircraft to orient themselves and effectively direct fire for artillery units. Bringing effective fire to bear was at times a hit-and-miss affair as the U.S. artillery had to shoot blind.

The Hürtgen Forest was not unlike other forests in Germany. As the land has been intensely cultivated over many centuries, so have its forests. The Germans responsible for managing the forest's resources over the years did so in a way that would result in a maximum yield from its fir trees. Before machines were developed to remove the logs, horses performed that function. The trails, therefore, were at best covered with grass but more likely were simply soil. When the logs were dragged along the trails when the ground was hard, little damage was done to the trail surface. But in rainy spells the trails became muddy, and wheeled transport frequently got bogged down, particularly when extensive use was made of the trails. After sustained rain, the trails resembled creeks.

The true test was whether a quarter-ton truck could negotiate a trail that had turned to mud. If the trail in an inclement state could not support a quarter-ton truck, then the trail failed the test as a viable means of travel. The Hürtgen Forest, except for a few hard surface roads, failed the test and contributed significantly to logistics and communications failures. The Germans found that by felling one or two trees they could easily block a trail, and they made good use of this tactic to slow U.S. forces.

Trails were not only easy to block, but the maps often failed to show where they led. Sometimes the trails did not even show up on the map. It was easy to get lost following what appeared to be a trail leading in a desired direction but which had no specific definition when it came to leading to a military objective. The resulting confusion was compounded by the Germans' expert use of the trails to form fields of fire for direct-fire weapons, such as the dreaded 88mm antitank artillery. American troops often could not effectively call for artillery fire using trails for orientation because of the disparate directions the trails frequently took. The best targets were villages and towns located in cleared areas.

The closely bunched trees in the Hürtgen Forest served the German defenders well. Air bursts from German mortars and artillery sent shards of wood spiking into the forest floor or into the heads and bodies of American soldiers. For this reason, American soldiers attempting to advance under such bombardment conditions were vulnerable to indirect enemy fire. While the American artillery and mortars could have the same effect on the Germans, the German defenders usually were protected by well-constructed field fortifications or concrete bunkers.

The trees also worked their misery on unprotected soldiers in tandem with the weather. A large amount of rainfall, especially during the autumn and winter action, meant that water hung in the overhead foliage only to drip constantly on soldiers without overhead cover, whether moving through the forest or in their open foxholes. American soldiers found themselves confined to waterlogged holes, which led to immersion foot, or trench foot. Casualties among soldiers who could not keep their feet dry were extremely high and the cause for much consternation among upper echelon command.

The Hürtgen Forest had other characteristics associated with the weather that affected combat operations. Dense fog and mist in the autumn and winter tended to hang in the valleys and among the trees. This hindered direct observation and posed a danger not only to patrols but also to any movement as it often proved difficult for a soldier to see more than a few feet. It was easy to get lost and disoriented walking a short distance or to accidentally stumble into an enemy patrol. Since the Germans had a better knowledge of the woods, they had a decisive advantage over the Americans when it came to moving through the forest.

In spite of the poor quality of some of the German infantry units at this stage of the war, the Germans nevertheless managed to exploit the full defensive potential of the Hürtgen For-

est. They could tell from the ring of an axe being used to cut down a tree, and by the direction of the sound of the axe, just how to bring fire to bear on the GI wielding the axe. The Americans learned the hard way that when they wanted to cut down a tree to build a protected fighting position it was best to use a hand saw. American vehicles operating in the woods telegraphed their movement by their distinctive sounds. The Germans had fewer vehicles, and they used their horses effectively in the dense woods to move artillery.

The Hürtgen Forest stood at the northern end of the 390-mile West Wall. The forest was thoroughly integrated into the Germans' fortification system. Even without fortifications the forest posed serious threats, but the combination proved to be a major obstacle to American forces.

The German defense of the Hürtgen Forest made use of many different techniques that stymied the American advance and compounded the effects of the forest's natural features. The trails not only served as deadly fields of fire but also were heavily mined and booby trapped. The Americans had a difficult time overcoming the mines. The Germans placed thousands of personnel mines in about every conceivable place. They could be closely grouped and stacked one or more on top of each other. When an American soldier went to remove a mine, he had to be sure it was not booby trapped or that there was not another mine set to explode when the weight of the top mine was removed. It soon became standard operating procedure to blow up mines in place rather than try to remove them.

The Germans covered forest trails and paths with weapons fire from well-concealed fighting positions. They had a special knack for camouflage. It was not unusual for an American soldier to be standing right beside a German field fortification and not be aware of it. The German positions not only were well located to provide flanking fire, but also they provided excellent overhead protection against American artillery fire.

Because the Hürtgen Forest was part of the West Wall, there was an abundance of permanent fighting positions located throughout the forest. The Germans built elaborate concrete bunkers that were often two or three stories deep into the ground. They were perfectly camouflaged with leaves and pine needles and blended seamlessly into the surrounding landscape in a way that made them almost invisible to the American troops. They had to be reduced by infantry and engineer troops using explosive charges and small arms fire. Once captured, a bunker or concrete position had to be secured against recapture by the Germans.

Both: National Archives

ABOVE: Heavy autumn rains turned forest roads into rivers of mud, making it nearly impossible for wheeled vehicles to get traction. BELOW: American soldiers man a .30-caliber machine gun. The fighting took its toll on U.S. forces, requiring units to be pulled out of line to refit and fresh units inserted into the battle in their place.

German tactics took full advantage of the features of the terrain and weather while making optimum use of their defensive expertise. The Germans registered with mortars and artillery the roadblocks they had established to slow down the Americans. When the Americans fired their artillery, the Germans would fire their own behind the Americans to make the Americans think that their own artillery rounds were landing short.

German soldiers cut American telephone lines and effectively monitored the largely undisciplined American radio transmissions, which allowed them to eavesdrop on American tactical operations and activities.

If the terrain and German tactics and fortifications were not formidable enough, Hodges and his chief of staff, Maj. Gen. William B. Kean, proved themselves to be insufferable throughout the Battle of the Hürtgen Forest. Hodges, who had an abrasive personality, held the record for relieving the most corps and division commanders in Lt. Gen. Omar Bradley's 12th Army Group. He canned

10 of 13 generals. He was quick to condemn others' shortcomings, but he took umbrage if someone insinuated that he might have contributed to the failure of one of his units. During the protracted battle he was often sick, leaving much of the combat direction to Kean.

Kean proved to be the key figure in the chain of command and ran the staff in such a way as to brook no opposition to command decisions. The rest of the staff operated as if it knew the answers to all challenges and projected a negative attitude to First Army units, which manifested itself in a blind stubbornness and ultimately resulted in heavy casualties. The First Army staff was the least effective of Bradley's three armies.

Hodges' First Army had three corps, but only two fought in the Hürtgen Forest. One was Maj. Gen. J. Lawton Collins' VII Corps, and the other was Maj. Gen. Leonard Gerow's V Corps.

Collins' VII Corps comprised the 4th Cavalry Group, 1st Infantry Division, 9th Infantry Division, and the 3rd Armored Division. Gerow's V Corps was composed of the 102nd Cavalry Group, 4th Infantry Division, 28th Infantry Division, and the 5th Armored Division. Collins' VII corps would spearhead the attack into the Hürtgen, and Gerow's V Corps would advance to the south to cover Collins' right flank.

Three factors in particular would contribute to the agonizingly slow progress that Hodges' First Army would make through the Hürtgen Forest. The first factor was the dense nature of the woods, which slowed the American advance to a crawl. The second factor was the Germans' stubborn defense. The third factor was First Army's command shortcomings and the adverse effect these problems had on frontline combat units.

The initial, relatively brief encounters in the dark forest experienced by the U.S. 3rd Armored Division and the U.S. 1st Infantry Division were also experienced during Maj. Gen. Louis A. Craig's 9th Infantry Division's penetration of the West Wall on September 13. Craig's division would be the first of several to experience the Hürtgen Forest's death grip.

The 1st Battalion of the division's 39th Infantry Regiment crossed the German border from Belgium almost unopposed into the town of Lammersdorf on September 14. Lammersdorf was situated just outside the southeast corner of the Hürtgen Forest abreast of the West Wall fortifications. Hardly had the U.S. infantrymen advanced beyond the town when the German 98th Infantry Division sprang into action. German gunners inside pillboxes poured heavy fire into the advancing Americans, pinning them down.

This marked the beginning of the battle. The battle began with tedious small unit combat against a determined but understrength enemy. By September 18, the Americans had managed to carve only a 1½-mile-wide path through the German fortifications at the forest's edge. Frequent rain and thick cloud cover limited the number of close air support missions that U.S. ground attack aircraft could fly.

The quality of the German forces the 9th Infantry Division faced offered the Americans some degree of solace, though. Colonel Karl Roesler's 89th Infantry Division, which by that time was composed of only two grenadier regiments, was badly depleted in manpower. Created in January 1944 with conscripts from the Replacement Army, the division had suffered heavy losses in Normandy. By September, one of its two remaining regiments was almost nonexistent as a result of attrition, and the other had only 350 men. Roesler had scraped together his artillerymen, engineers, and service troops and put them on the front line. The German high command had reinforced his division with a battalion of reservists, three battalions of Luftwaffe ground protection troops, and a battalion of 450 Russians pressed into German service.

Deployed to the north on Roesler's right flank across the German LXXIV Corps boundary was the German 9th Panzer Division. The panzer division also was badly understrength. It had 2,500 grenadiers, 200 machine guns, and 13 Panther tanks. The Germans' best hope lay in the anticipated arrival from the Eastern Front of Colonel Gerhard Engel's 12th Infantry Division. The division had 14,800 men organized into three infantry regiments, each of which had two battalions. It also had 12 batteries of artillery.

The lead elements of the 12th Infantry Division began arriving in the northern part of the

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Hürtgen Forest on September 16. Engel's troops initially engaged elements of Rose's U.S. 3rd Armored Division and the 47th Infantry Regiment.

The arrival of Engel's troops compelled Maj. Gen. J. Lawton Collins, the American VII Corps commander, to direct Huebner's 1st Infantry Division, Rose's 3rd Armored Division, and Craig's 9th Infantry Division to consolidate their positions by shortening their lines. Collins then ordered the 9th Infantry Division, after a brief pause, to begin clearing the Hürtgen Forest to remove the threat the Germans there posed to his right flank.

The Schwammenauel and Urft dams, known as the Roer dams, were becoming increasingly important objectives to Hodges' First Army. The Roer dams had only belatedly been gaining recognition as justification for a continued advance. Bradley, Hodges, and Collins agreed that the Americans needed to seize the dams to prevent the possibility of the Germans releasing the water and flooding the Roer Valley. If that occurred, millions of gallons of water would keep the river at flood stage for weeks, inundating the entire valley. The Roer River at flood stage might delay the passage of American forces for several weeks. When Collins ordered the 9th Infantry Division into the forest in September, the need to capture the dams had not been considered a critical intermediate objective in First Army's advance to the Rhine River.

To accomplish the forest-clearing mission, arrayed north to south in the Hürtgen Forest were the 9th Infantry Division's 47th, 60th, and 39th Infantry Regiments. Beginning on September 19, the division sought to capture the key crossroads town of Schmidt on the eastern edge of the forest near the dams.

Schmidt, which was located just over a mile west of the dams, lay behind the West Wall in open terrain. Its seizure was essential to the capture of the dams. At that point, the progress of the U.S. infantry began to be measured in yards rather than miles.

American close air support was limited. Fog and mist at ground level obscured observation even if the skies above were clear. These conditions precluded effective support. Within the forest, tanks and tank destroyers had difficulty maneuvering and bringing their guns to bear. By the close of September, the 60th Infantry Regiment had bludgeoned its way aimlessly through a morass, almost reaching the Germeter–Hürtgen–Kleinau Road in the forest. The 39th Infantry Regiment had reached the Lammersdorf–Germeter Road on the 60th Infantry Regiment's south flank. But the Germans still held Schmidt.

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ABOVE: GIs clear and inspect a German machine-gun nest in the Hürtgen Forest after a firefight. Felled trees and evergreen branches augmented the strength of the position. OPPOSITE: An American reconnaissance team takes cover as it goes into action against a German machine-gun nest concealed in the forest. A mortar team at left shells the German position.

By October 6, the 9th Infantry Division held a nine-mile front. Before the division could capture Schmidt, it had to take other villages. The 39th Infantry on the left and the 60th on the right received orders to capture the villages of Germeter and Vossenack, cross the Kall River valley, and advance through the hamlet of Kommerscheidt to Schmidt. A narrow, twisting path known as the Kall Trail led south from Vossenack through the woods to the Kall gorge. Beyond the gorge lay Kommerscheidt and Schmidt practically adjacent to each other.

It was a tall order given the fierce German resistance. General Hans Schmidt's 5,000-strong 275th Infantry Division opposed the two American regiments. Although his division was not at full strength, its troops nevertheless had constructed log bunkers, foxholes, and roadblocks. They also had laid mines, strung barbed wire, and established interlocking fields of fire.

On October 6, the two U.S. regiments attacked. They immediately ran into tenacious resistance. Although advance elements pushed through the pillboxes of the West Wall, progress was extremely slow. U.S. tanks and tank destroyers arrived two days later to assist the infantry. The armor's extra weight resulted in a limited penetration of the West Wall.

The 1,200-strong German battle group known as Regiment Wegelein, which was named after its commander, Colonel Wolfgang Wegelein, began moving south toward the Hürtgen on October 11 to assist the 275th Division. The following morning, Wegelein's men, who were well armed with submachine guns, machine guns, and mortars, attacked the northern flank of the 39th Infantry Regiment at the village of Wittscheidt. The Americans held onto the village, but the counterattack forced them to halt short of Schmidt and consolidate their positions.

Over the course of the next two weeks, the tired, disillusioned, and bedraggled U.S. soldiers were forced to withstand ever worsening weather, constant enemy patrols, and withering artillery fire. On October 25, the 9th Infantry Division, except for the 47th Infantry Regiment, was allowed to pull out of the front line for rest and rehabilitation.

In less than four weeks, the 9th Infantry Division had suffered 4,500 casualties. Moving up to replace the 9th Infantry Division was Maj. Gen. Norman D. "Dutch" Cota's 28th Infantry Division. It was known alternately as the Keystone Division or Bloody Bucket Division. Hodges and his staff remained firmly convinced that the best route to the Roer dams was through Schmidt. Hodges ordered Dutch Cota to send all three of his regiments against the Germans. He reinforced Cota with three engineer combat battalions, a battalion of towed tank destroyers, and a chemical mortar battalion.

As October drew to a close, the Germans began earnestly preparing for "Wacht am Rhein," the German codename for the Ardennes counteroffensive. The preparations involved the withdrawal and reconstitution of forces, some of which were elite panzer formations, that had been deployed

near the Hürtgen Forest. Because of this, the fighting against the Americans fell to third-class German infantry divisions.

The experience of Dutch Cota's troops is summarized in the division's combat chronicle. "The 28th smashed into the Hürtgen Forest [on] 2 November 1944, and in the savage seesaw battle which followed, Vossenack and Schmidt changed hands several times." Cota deployed the 109th Infantry Regiment on the left, the 112th Infantry Regiment in the center, and the 110th Infantry Regiment on the right.

The regiments advanced in unison on November 2. Lt. Col. Carl Peterson's 112th Infantry Regiment in the center initially had the most success. Backed by M4 Sherman tanks, the GIs managed to fight their way into Vossenack. German grenadiers armed with panzerfausts knocked out five Shermans, but at least the Americans had something to show for the destroyed tanks. The following day, two battalions of the 112th crossed the Kall River. The 3rd Battalion, 112th Regiment fought its way through Kommerscheidt and entered Schmidt. The Americans caught the German garrison in Schmidt by surprise. By nightfall the town was squarely in the hands of three American rifle companies and a weapons platoon. Exhausted from the previous days' march, they decided not to send out any patrols that night.

But the Germans launched a vicious counterattack. The advancing enemy wiped out the 3rd Battalion. The Germans also retook Kommerscheidt before the counterattack ground to a halt.

By the end of the first week in November, only Vossenack was still in American hands. After the fighting on the Kall Trail ended, the regiment held only the western slope of the gorge. Cota's 28th Infantry Division had suffered the same heavy casualties that the 9th Infantry Division had suffered.

As the 28th Infantry Division was pulled out of line for rehabilitation on November 16, First Army prepared to make another major push to reach the Roer River. By then three U.S. infantry divisions were in the Hürtgen Forest. They were deployed north to south as follows: 1st, 4th, and 8th. The primary responsibility for clearing the forest at that point fell to Maj. Gen. Raymond O. Barton's 4th Infantry Division. Barton had orders to clear the Germans from the forest and then proceed northeast to the Roer River at Dueren.

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ABOVE: Medics of the 4th Infantry Division tend to a wounded GI. Evacuating the wounded was a difficult undertaking because they often had to be carried long distances to aid stations. OPPOSITE: Artist Ogden Pleissner captures the bleakness of the forest in which artillery shelling shattered trees, showering soldiers with deadly splinters. Five American infantry divisions were committed to the protracted battle before it was over.

Combat Command R (CCR) of the 5th Armored Division moved up to assist Barton's division in capturing the village of Hürtgen, which lay north of Vossenack. Schmidt's grenadiers braced for the attack of a fresh American division. Barton was promised air support. Despite inclement weather at Allied bomber bases in France and England, the bombers conducted bombing runs against the German positions in the Hürtgen in mid-November. Unfortunately, the bombs had minimal effect on the German fortifications. The Americans also unleashed the fire of nearly 700 artillery pieces against the German positions.

The 4th Infantry Division soon became yet another victim of the forest. Its 12th Infantry Regiment suffered heavy casualties in nine days of bitter fighting. Despite the heavy casualties incurred, the regiment seized control of key roads in the forest on November 16 that allowed CCR's tanks and tank destroyers to launch a major assault against German forces in the village of Hürtgen. But the Germans mauled the 12th Infantry Regiment, which by November 21 had suffered 1,600 casualties. Adjacent U.S. infantry regiments had no better luck in the forest as they struggled to clear the stubborn German resistance.

"As early as mid-September, the 9th Division had demonstrated that to send widely separated columns through an obstacle was to invite disaster," states the U.S. Army's official history. "Yet on a second occasion in October the 9th Division had tried the same thing and in early November the 28th Division had followed suit. Now the 4th Division was to pursue the same pattern."

In a number of actions in the eastern sector of the forest both the 8th and 22nd Infantry Regiments of the 4th Infantry Division struggled forward having to confront not only inclement weather and stiff German resistance, but also supply difficulties. By December 2, the regiments were on the verge of finally breaking out of the forest when they halted. But in doing so, they had suffered enormous losses.

To the north, Huebner's 1st Infantry Division, after severe fighting in the northwest portion of the forest, initially made enough progress to give higher headquarters some encouragement, but the intractable weather combined with stubborn German resistance kept the division from advancing out of the forest to drive to the Roer River.

One of the 1st Infantry Division's key objectives was the village of Heistern. With the assistance of artillery and tank fire, a battalion of the division's 18th Infantry Regiment succeeded in getting into the village the night of November 21. That night Colonel Josef Kimbacher, commander of the 104th Regiment of the 47th Volksgrenadier Division, led his troops in a counterattack. The Americans repulsed the attack and took 120 prisoners including Kimbacher.

Vicious fighting continued as both sides fought to control key terrain. The Germans launched an attack to retake Hill 203, and once they captured it they fought tenaciously to hold it because it afforded excellent observation over the surrounding terrain. The U.S. 18th Infantry Regiment drove the Germans from Hill 203 on November 24.

Meanwhile, the 8th Infantry Division, which was assigned to V Corps, with the 5th Armored Division's CCR in support, engaged the Germans. The 121st Infantry Regiment engaged four understrength battalions of the 275th Infantry Division in the mud, fog, and rain for control of the villages of Hürtgen, Kleinau, Brandenberg, and Bergstein.

By December 9, American M4 Sherman tanks had swept through the villages. The attached 2nd Ranger Battalion advanced from Bergstein and captured the excellent observation site of Hill 400.5, more familiarly known as Castle Hill. But the Germans immediately counterattacked and retook it. The 2nd Ranger Battalion suffered 25 percent casualties. Overall, the late November and early December push resulted in more than 1,200 U.S. casualties.

A hiatus occurred at that point as both sides concentrated on the Ardennes campaign. During that time, the 83rd Infantry Division relieved the battered 4th Infantry Division;

U.S. Army Art Collection

however, the 1st and 8th Infantry Divisions remained in place. In two months of sustained fighting in the Hürtgen Forest, five U.S. infantry divisions (along with a ranger battalion and an armored combat command) had suffered severe casualties. Losses amounted to approximately 5,000 men per division. The main objective of the battle, the Roer dams, would remain in German hands until February 1945.

Even at the outset of the Battle of the Bulge, Hodges remained fixated on capturing the Roer dams. He even launched yet another push to capture them. But when it was realized that the German counteroffensive in the Ardennes threatened the entire Western Front, Bradley compelled Hodges to switch to a defensive position. From mid-December to January 31, 1945, the action in the Hürtgen Forest was limited to local patrolling.

On February 5, Maj. Gen. James M. Gavin's 82nd Airborne Division and the 78th Infantry Division launched an attack from the western edge of the Hürtgen Forest to capture the Urft and Schwammenauel Dams on the Roer River. The paratroopers were shocked at what they saw as they took up their position on the Kall Trail to protect engineers clearing mines. "Immobile tanks and trucks and the bodies of dead American soldiers were everywhere," said Lieutenant John Cobb of the 505th Parachute Infantry Regiment. "The snow and cold had preserved the dead and they looked so life like it gave one a very eerie feeling."

Gavin established his command post in the Hürtgen Forest and saw firsthand the nightmarish conditions through which the Americans had suffered 33,000 casualties. "All along the sides of the trail there were many, many dead bodies, cadavers that had just emerged from the winter snow," wrote Gavin. "Their gangrenous, broken, and torn bodies were rigid and grotesque, some of them with arms skyward, seemingly in supplication." Such was the harvest of death in the Hürtgen Forest.

With orders to capture Kommerscheidt and Schmidt, the 82nd Airborne fought its way down the trail, across open terrain to Kommerscheidt, and continued on to Schmidt. The next step was to seize the two dams and prevent the Germans from flooding the area below the dams. The capture of the dams came several months too late, though, in some respects. "Had we secured them early in November [1944] and pushed across the Roer, the enemy would never have dared counterattack us in the Ardennes," wrote Bradley.

The belated task of capturing the Schwammenauel Dam was to be undertaken by troops from the 309th Infantry Regiment of the 78th Infantry Division. They approached the dam from the south while the 82nd Airborne Division put pressure on the enemy from its positions at Schmidt. Under German artillery and mortar fire on the night of February 9, American engineers and riflemen clambered atop the 170-foot-high dam to find it intact with no explosives attached. The Germans, however, had used another method to thwart the Americans. The American engineers soon discovered that the gate house, power room, and discharge valves controlling the flow of water from the dam had been thoroughly smashed. An immense of amount of water was already rushing downstream. Furthermore, the Germans had dynamited an outlet valve on the smaller upstream Urft Dam, which released additional water into the basin of the Schwammenauel reservoir. The Battle of the Hürtgen was over, but by flooding the Roer River the Germans delayed the Americans from crossing it for two weeks.

The Hürtgen Forest debacle was a costly one for the Americans in more ways than just failing to accomplish a timely capture of the two dams. From the beginning, the vague objectives assigned to the American divisions committed to the Hürtgen Forest resulted in heavy casualties not only in personnel but also in weapons and equipment. More than 8,000 First Army men suffered from combat exhaustion, and another 23,000 men were killed, wounded, missing, or captured. Multiple factors, including inclement weather, rough terrain, and enemy counterattacks, together with a corrosive command environment, combined to take a heavy toll on the American forces involved.

"In retrospect, it was a battle that should not have been fought," wrote Gavin. The battle for the Hürtgen Forest stands as one of the major mistakes of the war in Europe. On the whole, the Battle of the Hürtgen Forest produced heavy casualties for very little strategic benefit. □

RUSSIAN BEAR'S RAMPAGE

Russian ships of the line pummel red-bannered Turkish vessels at anchor. Czar Nicholas sought to take advantage of the decaying Ottoman Empire, which he called the "Sick Man of Europe."

CZAR NICHOLAS I'S WARSHIPS DESTROYED A SQUADRON OF UNSUSPECTING OTTOMAN SHIPS AT SINOP IN THE BLACK SEA AT THE OUTSET OF THE CRIMEAN WAR.

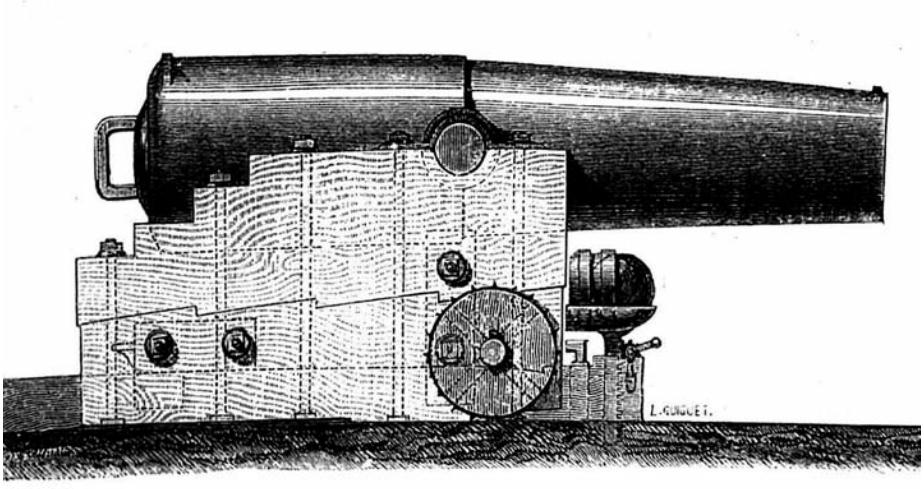
BY ROBERT HEEGE

IT WAS LATE IN THE MORNING OF NOVEMBER 30, 1853, AND THE BLACK SEA WAS living up to its name. Aboard the 44-gun Ottoman warship *Auni Allah*, the men of the fore watch, their duty done, had only just headed below decks, tramping wearily down the rickety wooden steps leading into the rabbit warren of dank, dark passageways deep within the bowels of the ship. Happy to be relieved and chilled to the bone, they were eager for the welcoming sight of the row upon row of dingy hammocks slung beam to beam across the length of the berth deck and the promise of sleep that awaited them. But fate, it seemed, had other plans.

The storm that had so relentlessly threatened to batter their ship into matchsticks had finally petered out. Several days before, in the dead of night, with their creaking conifer masts groaning under the strain of this seemingly relentless autumn gale, Patrona (Vice Admiral) Osman Pasha, the 61-one-year-old Turkish officer in overall command of both the ship and the flotilla to which it was attached, had been compelled to suspend squadron operations for the duration, prudently deciding that it would be better for the *Auni Allah* and her sister ships to put in at the nearest friendly port and wait it out.

Central Naval Museum, St. Petersburg

Musée de la Marine



ABOVE: Admiral Pavel Nakhimov's Russian warships mounted innovative Paixhan naval guns that fired explosive shells with delayed-reaction fuses. Instead of exploding on impact, the shells penetrated the hull and then exploded, causing massive damage. OPPOSITE: The Russian steam frigate *Vladimir* engages the Turkish frigate *Pervaz Bahri* before Sinop. The Russian Black Sea fleet preyed on Ottoman convoys supporting Turkish ground troops in the Caucasus Mountains, capturing the steamers *Pervaz Bahri* and *Medzhir Tadzhiret* in the process.

From the quarterdeck of the *Auni Allah*, which was Pasha's flagship, the order went out accordingly, and the corresponding signal pennants were sent fluttering up the halyard, directing each of his captains trailing along in formation to follow their lead, come about at once, and proceed due south with all possible dispatch.

With their storm-drenched canvas sails whipping in the wind, the rest of the flotilla swiftly corrected course and followed after the flagship. Changing tack, even as the punishing winds and the sea swells lashed them without respite, they made for Cape Sinop, where the Isthmus of Ince Burun curled outward into the sea like a beckoning finger and the moribund northern Anatolian coastal town of the same name offered the *Auni Allah* and the other 11 vessels of the patrolling squadron the promise of a refuge harbor, a safe haven in Turkish home waters through the long, tempest-tossed night.

But this all too idyllic sanctuary proved to be woefully short lived, for the break of day was not their friend. As the rising sun began cutting its way through the lingering cloud cover, spreading its gleaming rays over the frosty, white-capped waves, the dark specter of an altogether different kind of storm was already gathering on the near horizon. Indeed, as Osman Pasha's ships lay complacently at anchor they did not yet know that they were literally squatting in the eye of this new maelstrom. As the morning mist slowly began burning away toward the early afternoon, the squadrons' sailors going about their business above and below decks suddenly found themselves being jolted out of their doldrums by the raw shouts of the lookouts. This alarm was quickly followed by the urgent whistle call to action stations.

As Pasha and his captains squinted anxiously through their spyglasses and junior officers aboard every ship gripped the deck rails with throats gone dry, a pounding, Western-style drumbeat echoed across the harbor electrifying each ship's company. The drums were quickly joined by the dour notes of the buq, the traditional Mohammedan trumpet horn whose shrill alarm was soon resounding loudly throughout the entire squadron.

In seconds, the sultan's proud wooden ships sprang to life, reverberating with the sound of the purposeful, thumping footfalls of their respective crews as barefooted comrades began pushing through the lower passageways and rushing to their posts fore and aft on the upper decks, each man on every ship eager to answer the pasha's call to duty.

One of the cardinal axioms of warfare is to learn to expect the unexpected. However, moored at anchor as they were in one of their own home ports, the Ottoman sailors had believed they were safe. The crewmen aboard ships were a hardy lot, but they were psychologically unprepared for what came next, the solitary sound of one of the flagship's gunners suddenly piercing the overcast gloom with a lone cannon shot plunging impotently into the depths.

There followed an eerie calm that went on for several odd seconds. Even then, some of the old salts in the squadron might have been forgiven if there were still those among them who remained hard pressed to imagine that they were actually in any real danger. In any case, that lone gunner's report was soon enough answered in spades.

Aboard the *Auni Allah* the hapless swabbies below decks barely had time to blink. The next thing any of them knew, the fusty tranquility of their womb-like world below the waterline suddenly erupted, descending pell mell into a pandemonium of splintered wood and shredded humanity. All around them the briny wooden walls began to buckle and burst, blasted to bits by an unseen enemy and a weapon of destructive power hitherto unknown upon the high seas.

Shot to pieces in a matter of moments, the *Auni Allah*'s forward bulkheads shook and shuddered, groaning like a dying sea beast as they began collapsing inward. Hoarse shouts and oaths to Allah competed with the screams of the wounded as desperate crewmen clambered over the mangled and the dead in a desperate bid to escape. Suddenly, there was a terrific explosion. The ship listed violently, everything went black, and the dark green sea came pouring in.

Taken almost completely unaware, bunched and bottled up in the harbor like so many sardines in a tin, the Turks found it difficult enough even to weigh anchor with any speed, much less maneuver to any advantage. The *Auni Allah* and her sister ships, the whole of Osman Pasha's flotilla, quickly realized to their horror that, barring some immediate manifestation of the baraka, they were little more than sitting ducks, entirely at the mercy of what would shortly prove to be a devastating, pitiless naval bombardment that was now poised to pulverize each and every one of them.

Preoccupied by the storm that had threatened to shred their mainsails, Pasha and his captains, having been caught asleep at the helm, were all in for a deadly penance. In a way, they were about to pay the butcher's bill for the negligence of generations. They now found themselves defenseless because, like the empire they served, they had failed to detect the immediate presence, much less sufficiently appreciate the threat posed, by a hostile, resolute enemy of determined, single-minded, shark-like ruthlessness, that had been circling the waters, almost under their very noses.

Like languidly complacent Sultan Abdulmecid I in Constantinople, they had been blind to the ever more menacing intentions of a ruthless, steadily encroaching nemesis whose warships now boldly appeared directly before them in strength, massing at the entrance to the harbor to test their seamanship and bedevil their disbelieving eyes. Here then was the opening shot of what was soon to become the Crimean War.

Turkey and her increasingly sclerotic empire were long derided as the perennial "Sick Man of

Europe." Turkey was once the primary menace to Western civilization, but its many decades of gangrenous decline were truly a dismal reversal of fortune. It had not always been so, and no student of history, military or otherwise, could say that the Turks had not had a good run. But for the once mighty Turks, it was the rise of Russia, a great power coming late to the scene, that more than any other factor would prove to be their undoing.

Starting in the late 17th century, the dynamic young Czar Peter the Great feverishly began the arduous task of modernizing his vast but backward domains. Importantly, he built a large modern navy modeled after those of his Western European counterparts.

By the 1770s, his successor, Catherine the Great, had robustly waged a short, sharp war against the Ottomans in a quick bid to enlarge the territory of her already huge realm at Turkish expense. She successfully managed to wrest the whole of the Crimean Peninsula from Turkish suzerainty and sent her spanking new ships, captained by some of the world's most illustrious seamen-for-hire, such as American hero John Paul Jones, into the northern Black Sea directly across the water from the Turkish homeland. The stage was set for all that followed over the course of the next century, and the events at Sinop would prove to be the linchpin.

The rise of Russian power and prestige upon the world stage was increasingly linked to Turkey's declining fortunes. More than any other rival, the Russians were a constant source of misery for the beleaguered Turks. Doggedly pursuing their quarry, continuing to lust after more and more of her territory, the Russian czars steadily increased their empire throughout the 1800s by continually nipping at the edges of the Ottoman domains.

This created a sort of international chess match as the Western European powers, primarily Great Britain and France, grew anxious at the prospect of the Russians gaining a foothold on both shores of the Black Sea. The thought of Russia one day seizing the Straits of the Bosporus and sending their warships sailing straight down through the Dardanelles into the Eastern Mediterranean was almost too chilling for the West to contemplate.

Perversely, the very same European powers that had feared the wrath of the Turkish invaders for centuries felt compelled to bolster the Ottomans' fragile regime to deny each other and the Russians an advantage that would upset the geopolitical balance of power.

Despite his sincere reformist ambitions, heading into the second half of the 19th century the hopelessly corrupt Ottoman court of the spendthrift Sultan Abdulmecid I was used to being financially bailed out by a series of massive loans supplied, somewhat begrudgingly, by successive British and French governments, that they came to rely upon these glorified welfare checks as a matter of course.

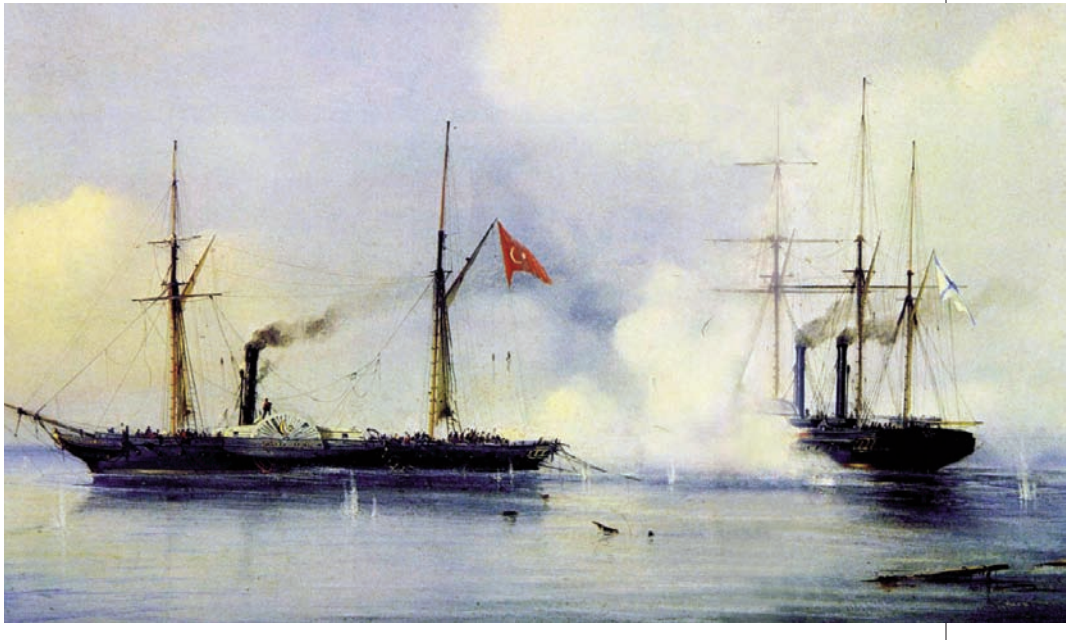
From his throne in the Winter Palace outside Saint Petersburg, Czar Nicholas I watched the piecemeal defanging of the once fearsome Grand Turk with increasingly undisguised delight. With each passing year, the number of Turkish ships plying the waters of the Black Sea became smaller, even as those of his own celebrated navy increased steadily. His generals were still dining off the reflected glories of his illustrious ancestor, Alexander I, who, along with the infamous Russian snows, had put an end to Napoleon's glory-hungry megalomania in the winter of 1812.

Sensing a ripe opportunity to profit from the misery of his rival ruler, in 1853 the opportunistic Czar Nicholas made up his mind that the time was right to consolidate and expand his acreage in the disputed peaks and valleys of Transcaucasia.

Hoping to pull off a fait accompli, the czar sent his armies pouring into the sleepy Ottoman backwaters abutting his already rambling realm in July 1853 in an effort to Russify as much of the long neglected territory as possible, even managing to snatch up several poorly defended Turkish fortifications along the river in the process.

The sultan, unexpectedly roused from his torpor by this bold challenge to his sovereign borders, angrily protested. He also lodged an emphatic complaint to his British and French paymasters, who attempted to mediate. When the czar ignored Turkish demands for an immediate Russian pullback,

Alexey Bogolyubov



the sultan rashly declared war on the Russian Empire.

Alarmed by the prospect of the Russian hordes steamrolling their way to Constantinople in a fortnight, the British and French issued a peculiar joint statement. They assured the czar that since war had been declared on him, they recognized the right of Russia to defend herself and would pursue a middle course along the lines of a guarded, conditional neutrality emphasizing monitoring and mediation. London and Paris would stand by and refrain from mobilizing their troops provided that any forthcoming Russian military response was constrained, symmetrical to the threat, and remained purely defensive in spirit.

For a short while, both sides seemed to be taking the measure of each other, albeit warily. After a tense but relatively bloodless summer, on October 4, 1853, Turkish troops began a two-pronged offensive. They started with what amounted to a series of minor attacks along the Danube line. But a major conflict soon developed in the Caucasus Mountains, where the Turks threw everything they had into pushing the Czars' troops back across the disputed frontier.

The Turks caught the Russians off guard, and by sheer weight of numbers, managed to force the Russians to pull back. Buoyed by this success, the emboldened Abdulmecid ordered his troops to press on, harrying them into the birch forests of Russian Georgia with a view toward reclaiming Turkish honor and then beating a path toward the peace table to settle the border question in his favor before his momentum, munitions, money, and luck ran out.

Meanwhile, the czar chafed at the restraints placed upon his legions but muted the rattling of his Cossacks' sabers,with the result that by month's end the whole of the Russian Caucasus Corps was under the threat of a potentially humiliating encirclement. Eager to close that trap, the sultan sent a supply convoy of transport steamers escorted by several frigates scurrying across the Black Sea to bolster his forces. This convoy managed to get through, thoroughly galling the Russians, who resolved that it would be the last.

To that end, a Russian squadron came roaring out of its base at Sevastopol on Russia's Crimean Peninsula. Fifty-one-year-old Admiral Pavel Nakhimov, a veteran naval officer, commanded the Russian squadron. He planned to send any such future convoys straight to the bottom of the Black Sea.

One month later, an anxious Abdulmecid, oblivious to the beefed-up Russian presence, ordered up a second, more muscular convoy to be supported by several ships of the line to resupply his increasingly rickety offensive. Fearing a widening of the conflict, British Ambassador to the Ottoman Empire Viscount Stratford de Redcliffe, who had been keeping tabs on the developing situation in an effort to contain and control it, insisted that the sultan scale back the firepower escorting the supply ships to a handful of much smaller frigates.

Abdulmecid reluctantly agreed, even though he had already lost a brace of ships that month, the *Medzhir Tadzhiret* and her sister steamer, the *Pervaz Bahri,* boarded and captured within sight of the Anatolian coast after being quickly overwhelmed by Russian ships of the line. Thus, a much less brawny flotilla duly set sail that November to resupply the Turkish army, already beginning to bog down in the Caucasus. That flotilla was under the command of the venerable Patrona Pasha.

By that time, the Russian squadron was prowling the Black Sea waters hungry for a kill. Indeed, the czar put so many vessels on the water that he had all but attained supremacy of the great waterway. Nevertheless, the weather was so miserable and punishing to any who dared to test the Black Sea in autumn that the Russians, Nakhimov included, were continually compelled to return to port for refitting. The same November gales that had battered Osman Pasha's flotilla into submission were also having their way with their would-be pursuers. By the end of November, Nakhimov was down to three ships of the line, one frigate, and a lowly steamer to doggedly continue his interdiction mission.

Nevertheless, eagle-eyed lookouts aboard Nakhimov's gargantuan flagship, the *Imperatritsa Maria,* caught sight of Osman Pasha's ensign fluttering in the breeze high atop the *Auni*

amolenuvolette

Aleksey Kivshenko

ABOVE: Russian Admiral Pavel Nakhimov surveys the Ottoman fleet from the quarterdeck of his 84-gun flagship *Imperatritsa Maria.* His two squadrons fanned out across the harbor and blocked all possible avenues of escape. LEFT: In one horrendous half hour, the Russian ships of line pulverized the Ottoman fleet destroying all but the 12-gun steamer *Taif.*

Allah, which was at anchor in the harbor at Sinop with the rest of his flotilla in the last week of November. Gazing hard at them through his spyglass, Nakhimov could hardly believe his eyes. From his perch on the *Imperatritsa Maria*'s quarterdeck a few leagues out to sea, they looked like a colony of basking sea cows waiting for the sun to come up.

Resolving to keep his quarry bottled up, Nakhimov stealthily deployed his squadron on the far outskirts of the harbor's entrance. He arranged his ships in a horseshoe-shaped configuration designed to blockade the enemy ships. He then sent his immediate subordinate, Rear Admiral Fyodor Novosilsky, dashing off in his frigate to Sevastopol to scrounge up more firepower. Novosilsky dutifully returned on the last day of November with an additional half dozen ships and the promise of still more to come.

Osman Pasha's lookouts spotted Nakhimov's squadron soon after it began fanning out just beyond the entrance to the harbor. But Osman Pasha ventured that the enemy would not dare to come any nearer because Sinop, picturesque little harbor town though it was, was nonetheless a fortified one, boasting several cannons designed to blast the hulls out of any potential attacker.

But there was one more detail that convinced Pasha to sit tight in the harbor that day. Having been in the Navy since the 1820s, he was decidedly old school. As a dyed-in-the-wool naval traditionalist, the idea of large fighting ships attacking vessels that were smaller than their own and of a different, lower class was considered dishonorable in the extreme. In his world, such things simply were not done.

Likewise, a gentlemen could never bring himself do anything as low and as dastardly as attack a ship resting at anchor. In truth, most of the navies in the world still adhered to this chivalrous code. But it was about to become painfully clear that Nakhimov was no gentleman.

By November 30, Nakhimov had cobbled together an attack force composed of six ships of the line, two nimble frigates, and three workhorse steamers. Each was appropriately fitted out and battle ready. His command boasted more than 700 guns and enough cannon balls and shot to make mincemeat out of Pasha's command, which owing to the meddling of Queen Victoria's ambassador, consisted of seven small frigates, three corvettes, and two rusty support steamers.

But Nakhimov's squadron had one more item in its arsenal. Nakhimovs' ships of the line were also equipped with a revolutionary new addition to their armament, a breakthrough in weapons technology that gave them a decidedly more lethal capability at sea than had ever been seen before, known as the Paixhans gun.

Named for its inventor, Frenchman Hans-Joseph Paixhans, the Paixhans gun was a heavy-duty, extended-range artillery piece that was originally intended exclusively for armies fighting on dry land. Unlike traditional smoothbore, bronze cannons, Paixhans guns fired shells with ignitable, delayed fuses. This unique innovation proved to be even more fearsome upon the high seas.

Rather than exploding on impact, the Paixhans shells would remain intact as they struck the sides of the wooden sailing ships of the day, penetrating and lodging themselves deep within the timbers of their vulnerable wooden hulls. When the fuses burned down the shells exploded, causing massive structural damage as they sent sheets of flame and burning chunks of metal whizzing through the air, shredding anything in their path.

Adapting this new technology for naval warfare was a Russian innovation. It was such a recent development that the Russian Navy had not yet deployed its newest gun in a sea battle.

At about 12:30 PM, November 30, 1853, the impetuous Nakhimov could no longer contain himself. From the quarterdeck of the *Imperatritsa Maria,* he stared at his quarry and directed his

Central Naval Museum, St. Petersburg

Fires from burning Turkish ships cast an eerie glow throughout Sinop Harbor. The one-sided naval battle solidified the resolve of France and Britain to assist the Ottomans in their war with the Russians.

gunners to prime her 84 guns. A moment later, signal pennants relayed his single, brusque command throughout the squadron: prepare attack.

With that, Nakhimov's squadron maneuvered swiftly into position. Assuming a textbook triangular formation, they went forward, coming in hard from the northwest, sailing straight into the harbor with Nakhimov's flagship in the van. As the Turks looked on in astonishment and horror, Nakhimovs' six enormous Russian ships of the line moved in for the kill.

Forming into two long columns, they fanned out trimly across the harbor from left to right, facing off opposite Osman's flotilla while simultaneously blocking their avenues of escape. By this bold if simple maneuver, Nakhimov also managed to deftly see to it that the Turkish ships were now anchored between his squadron and their own shore batteries, essentially neutralizing their offensive capabilities by making it impossible for them to open fire without hitting their own ships.

Dropping anchor, Nakhimov stood unperturbed on his quarterdeck as the *Auni Allah* loosed a single cannonball toward the *Imperatritsa Maria,* which, on Nakhimov's command, gave the *Auni Allah* immediate reply and commenced firing, emptying a broadside into her.

Dropping anchor almost simultaneously, the Russian gun crews aboard the other ships of the line, the 84-gun *Chesma* and her sister ship, the *Rotislav,* and the 120 guns each aboard the *Parizh, Tri Sviatitelia,* and *Veliky knyaz Konstantin,* opened up on the doomed Turkish flotilla.

In one horrendous half hour, the harbor at Sinop began to resemble a butcher's yard as the brutally efficient Paixhans guns found their mark time and again. Singled out for destruction, the *Auni Allah* was run aground, shot to pieces, and set on fire as she tried to cut the cables and run for it. Attempts to put out the flames came to naught. Incendiary shells continued to rain down upon her terrified, nearly helpless crew, bursting into flames amid hailstones of shrapnel that killed and maimed sailors and officers alike, including Pasha, whose left leg was completely shattered.

Having reduced her opposite number to a burning hulk, Nakhimov's flagship then set its sights on the *Fazli Allah,* like nearly all of the Pasha's ships a lowly frigate whose 44 guns were among those returning fire but were no match for the Russian Goliaths. Her fate was identical to that of the luckless *Auni Allah*.

At this point, the two Russian frigates, *Kagul* and *Kulevtcha* with 98 guns between them, began pounding away at the flotilla while the six ships of the line let their guns cool. The frigates blasted the hull out of the D*amiat,* which sank up to her gunwales, and the *Nizamieh,* which was run aground on purpose after having two masts shot away as she desperately tried to maneuver out of the kill zone and reach the open sea. Even the Russian steamers *Khersones, Odessa,* and *Krym,* which were there to support the attack, got into the fray.

The Paixhans guns found their mark yet again, blazing away at another Turkish frigate, the *Navek Bahri,* which was lifted clear out of the water in a spectacular series of explosions before sinking into the silt bed of the harbor. The smaller corvette *Guli Sephid* met an identical fate. The Turkish frigate *Nessin Zafer* ran aground after she broke her own anchor chain and was nearly pulverized. Yet another frigate, the *Kaid Zafer,* met a similar fate, as did the corvettes *Nejm Fishan* and *Feyz Mabud* and the steamer *Erkelye.* When they were done shooting at the ships, the Russians gleefully trained their guns on the shore batteries.

Alone among Osman Pasha's decimated command, the humble steamer *Taif* was miraculously able to escape the carnage, slipping her anchor and clearing the harbor while the Russians were otherwise occupied. She limped through the Dardanelles and reached Constantinople two days later, living to tell the tale of what had happened at Sinop, where the Russians, with minor damage to three ships and a minimal cost of 37 killed and little more than 200 wounded, sent more than 3,000 Turkish sailors to a watery grave and bagged more than 300 prisoners, including the severely wounded commander of the Turkish squadron.

For the once unassailable Turkish Empire, the Battle of Sinop, occurring in the Black Sea, a body of water once so thoroughly dominated by Turkish sea power that successive dynasties in Constantinople had long since grown accustomed to thinking of it as a virtual Ottoman lake, altered the course of history. This black day on the water brought with it the sickening realization that the continuing, centuries-long decline of Turkey's once mighty empire had just entered a new and deadly phase. □

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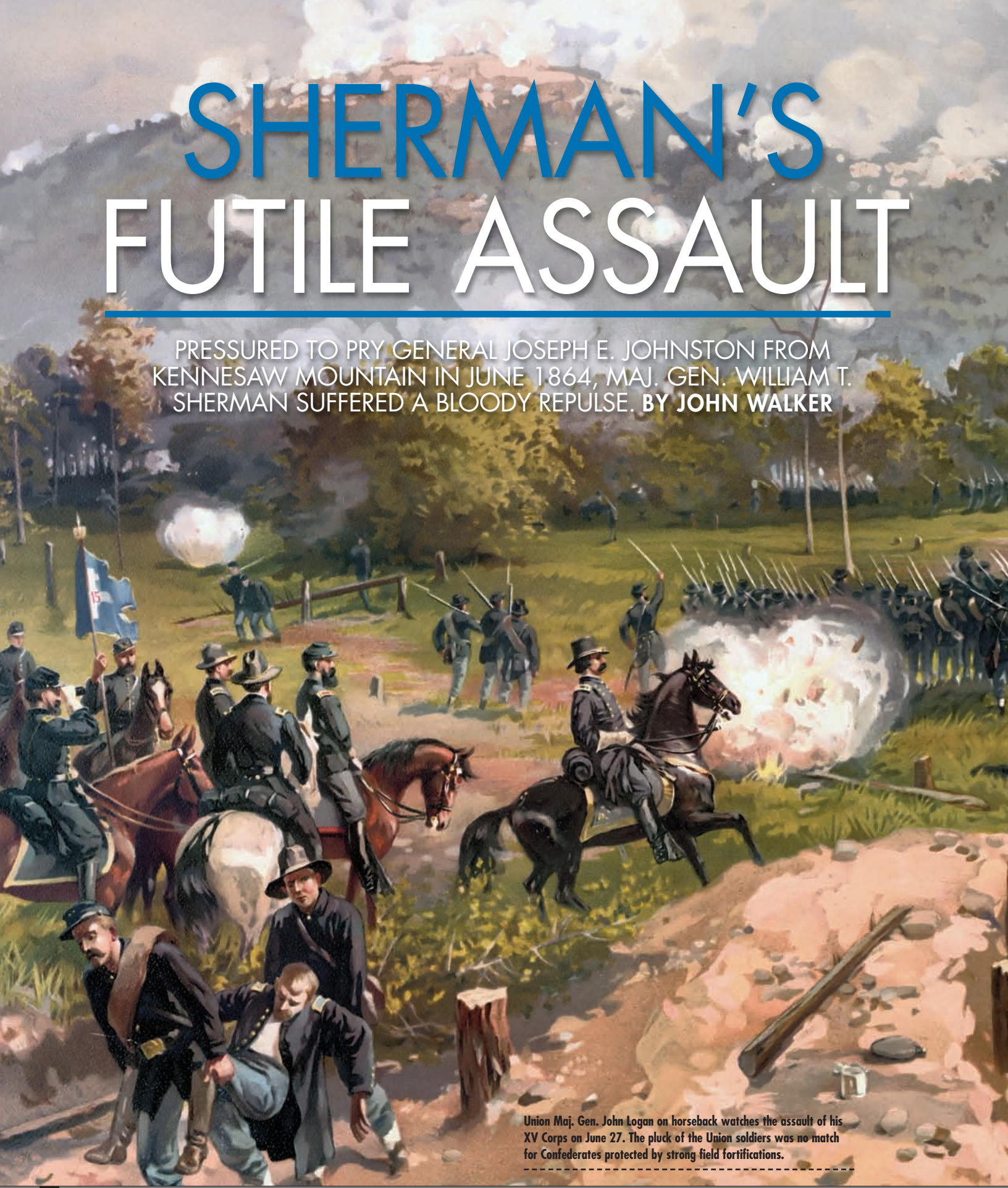
SHERMAN'S FUTILE ASSAULT

PRESSURED TO PRY GENERAL JOSEPH E. JOHNSTON FROM KENNESAW MOUNTAIN IN JUNE 1864, MAJ. GEN. WILLIAM T. SHERMAN SUFFERED A BLOODY REPULSE. **BY JOHN WALKER**



Union Maj. Gen. John Logan on horseback watches the assault of his XV Corps on June 27. The pluck of the Union soldiers was no match for Confederates protected by strong field fortifications.

Shortly after dawn on June 27, 1864, Union artillery crews sprang into action on 200 guns facing miles of the Confederate defenses along the Kennesaw Line near Marietta, Georgia.

Jostled and jarred awake by the tremendous barrage, Private Sam Watkins and his fellow riflemen of the 1st/27th Tennessee Regiment (Consolidated) stood up in their trenches and watched, enthralled as hundreds of Yankees surged toward them from the Federal lines 400 yards away.

Although the concentrated shelling did little more than alert the defenders that a ground attack was imminent, the Confederates marveled at the volume and intensity of the fire. To them it was one more manifestation of Yankee wealth and ingenuity. "All at once a hundred guns from the Federal line opened upon us, and for more than an hour they poured their solid and chain shot, grape and shrapnel right upon this ... point," wrote Watkins. For the next three hours one tightly packed Federal column after another charged into the teeth of the Confederate rifle fire.

The stakes that day could not have been higher. After his advance into north Georgia had stalled in the rain and mud just 20 miles from Atlanta, Maj. Gen. William T. Sherman had decided to launch an all-out frontal assault against the entrenched positions of General Joseph E. Johnston's Confederate Army of Tennessee in the hope of bringing the campaign to a rapid, decisive end. A Union breakthrough in strength somewhere along the line would split Johnston's army, lead to the capture of Marietta and a Yankee drive to the Chattahoochee River, and ultimately to the capture of Atlanta. Such a string of events would prove catastrophic to the Confederacy and might result in the South's surrender. For these reasons, the Kennesaw Line had to be held "at all hazards," according to Johnston and his lieutenants.

In March 1864, the American Civil War neared its fourth year, and newly promoted Lt. Gen.

Alamy

Library of Congress

Southern gunners fire furiously from commanding positions at the advancing Federal lines during the June 27 attack in a sketch by battlefield artist Alfred Waud.

Ulysses S. Grant prepared to head east to Washington to assume his duties as general-in-chief of all Union armies. Grant chose Sherman to succeed him as commander of the Military Division of the Mississippi, a sprawling swath of territory that encompassed most of the war's western theater. Grant's instructions to his fellow Ohioan for the coming campaign were straightforward. Sherman was to move south from Chattanooga, Tennessee, along the Western and Atlantic Railroad and not only destroy Johnston's army, but also systematically demolish the enemy's industrial capability.

The irascible Sherman began his advance into Georgia on May 4 with an army group numbering 98,000 men against Johnston's 49,000. But the terrain favored the Southerners, for behind Johnston lay 100 miles of mountain ranges, rivers, and tangled forests. It was ground that would prove a formidable ally to the Confederate defenders.

Sherman's invasion force consisted of three armies: 60,000 men of Maj. Gen. George Thomas's Army of the Cumberland, 25,000 men of Maj. Gen. James McPherson's Army of the Tennessee, and 13,000 men of Maj. Gen. John Schofield's Army of the Ohio.

Johnston's Army of Tennessee during the Atlanta Campaign consisted of Lt. Gen. William Hardee's corps, Lt. Gen. John Bell Hood's corps, and Maj. Gen. Joseph Wheeler's cavalry corps. When Lt. Gen. Leonidas Polk's 16,000-man Army of Mississippi joined Johnston's army in May, it raised the number of Johnston's troops to 65,000 men.

Johnston had established a strong position west of Dalton on Rocky Face Ridge astride the Western and Atlantic Railroad 25 miles south of Chattanooga, where he awaited the Federal advance. Sherman responded by commencing a series of flanking movements that resulted in Johnston withdrawing to Resaca on May 12. After two days of hard fighting near Resaca, Johnston withdrew south to Cassville on May 15 to avoid being outflanked.

Believing he had an opportunity to strike Sherman a telling blow, Johnston ordered a major attack at Cassville on May 19. Johnston's plan called for Polk's corps to draw the Union forces toward them so that Hood's corps could strike them in the flank. But the usually aggressive Hood, alarmed by an erroneous report that a strong enemy force had unexpectedly gained his flank, pulled back and called off his attack. Afterward, Johnston fell back 10 miles to a new line south of the Etowah River. The Confederates established a new defensive position around Allatoona Pass.

Johnston had no luck against the Yankees at Allatoona either. But Sherman was not about to launch a frontal assault on an entrenched enemy in a heavily fortified mountaintop position. At that point, Sherman decided to move away from the railroad line along which he had been advancing. Although he was stretching his supply line by moving away from the railroad, he nevertheless proceeded with the change in tactics. On March 22 he ordered his three armies to march west. Johnston matched his move and redeployed his troops south of Dallas. The Confederate line stretched four miles from Dallas to New Hope.

After sharp fighting at New Hope Church, Pickett's Mill, and Dallas over the course of several days beginning on May 25, both armies remained stationary as weeks of torrential rain transformed Georgia's red clay roads into muddy quagmires. While senior commanders on both sides discussed strategy, the frontline troops skirmished and harassed each other with artillery and sniper fire on a daily basis.

Meanwhile, Confederate President Jefferson Davis grew restive over Johnston's strategy of trading territory for time. On the northern side, Sherman became increasingly concerned about the deteriorating tactical situation. He believed all three of his armies were in danger of losing their fighting edge. "My chief source of trouble is with the Army of the Cumberland, which is dreadfully slow," he told Grant in mid-June. "A fresh furrow in a plowed field will stop the whole column, and all begin to entrench." He explained to Grant that despite his best efforts some of his senior commanders, particularly Army of the Cumberland commander Maj. Gen. George Thomas, were reluctant to press that attack despite repeated admonishment.

The two armies gradually shifted their lines eastward until both were astride the railroad just north and west of Marietta. Fearing envelopment, on June 19 Johnston withdrew his army into prepared entrenchments along Big Kennesaw Mountain and its spurs, where pioneers working around the clock digging trenches and erecting fortifications had converted the works into an earthen fortress.

After judging the Kennesaw Line too formidable to take by direct assault, which ironically he would try to do a few days later, Sherman sent Maj. Gen. Joseph Hooker's 15,000-man XX Corps to probe Johnston's left flank south of Powder Springs Road. Johnston countered by pulling Hood's corps out of line and sending it south and west along Powder Springs Road to extend the Confederate left flank. Hood, who commanded 14,000 men, was in position by June 22. In the mistaken notion that he had outflanked a Union flanking force, Hood impetuously attacked Hooker that afternoon near Peter Kolb's farm without reconnoitering the area. The Yankees repulsed the Confederates, inflicting more than 1,000 casualties on Hood, more than three times the number suffered by the Yankees, in just a few hours of fighting.

With his troops requiring 65 rail cars of supplies each day, Sherman fretted over his single-track lifeline. A significant interruption to his long supply line might cripple his campaign.

With another turning movement on the muddy roads seemingly impossible, Sherman also feared Johnston might take advantage of the stalemate to dispatch troops to reinforce General Robert E. Lee's Army of Northern Virginia. Sherman was infuriated when he learned that his detractors had deemed him as someone who was not a hard fighter, and he decided to refute the charge once and for all.

Sherman believed Johnston was anticipating another turning movement and that the Confederate commander had thinned his line in response to flank probes. "I am now inclined to feign with both flanks and assault the center," Sherman told U.S. Army Chief of Staff Maj. Gen. Henry Halleck on June 16. "It may cost us dear but the results would surpass an attempt to pass around."

For that reason, on June 24 Sherman issued a special field order directing his three army commanders to reconnoiter the Confederate positions to their front in force at 8 AM on June 27. To minimize the cost if the offensive failed, Sherman limited the weight of the assault to less than a fifth of the troops on hand and, giving up the element of surprise, ordered an hour-long artillery barrage to precede the attack.

Neither of Sherman's two primary attacks was directed against Confederate forces on Big Kennesaw proper, although McPherson was to demonstrate against it to keep Johnston guessing as to the true location of Sherman's main attack. Sherman assigned the heaviest assaults to Thomas, who Sherman instructed to attack the Confederates at any point near the center of their line using his own judgment. Sherman also directed Schofield to conduct a limited attack against Hood's corps on the Confederate left to confuse Johnston as to where the primary attack would fall.

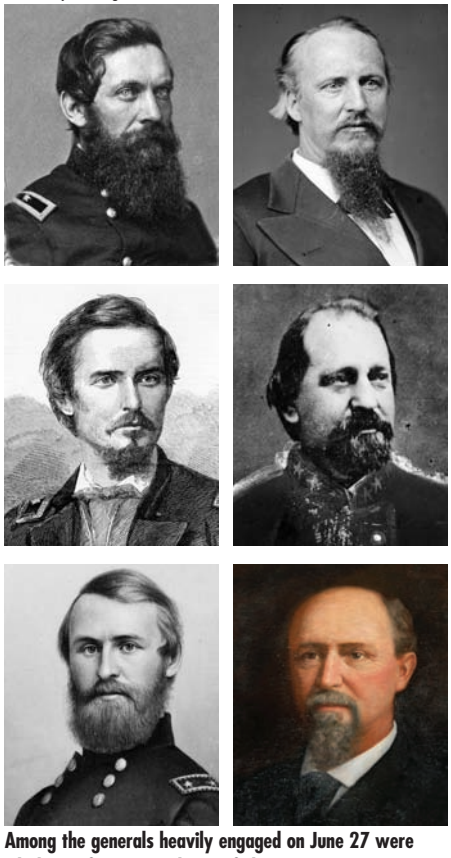
After Sherman and Schofield reconnoitered Hood's heavily fortified two-mile front on the morning of June 25, Sherman modified the order for the attack against the Confederate extreme left flank. Schofield and Hooker would instead feint against Hood's line on the following morning while Brig. Gen. Jacob Cox led his division down Sandtown Road and attempted to establish a foothold on the east side of Olley's Creek.

Sherman hoped this would compel Johnston to shift troops from his center to his left, thereby weakening his center and making it vulnerable to a breakthrough on June 27. As it happened, one of Cox's brigades, which was commanded by Colonel Robert Byrd, crossed the creek on June 26 and seized a hill on good defensive ground. In so doing, Byrd had actually turned Johnston's left flank, but the achievement went largely unnoticed. Because he was short on manpower, Johnston made no attempt to dislodge Byrd's brigade. Schofield, therefore, was free to exploit the unexpected opportunity on the day scheduled for the main attack.

After a brief preparatory artillery barrage, McPherson's skirmishers pushed up the steep slopes of Big Kennesaw at 8:30 AM on June 27. Their objective was to keep Johnston from shifting troops from there to other parts of the field. Brig. Gen. Mortimer Leggett and Brig. Gen. Walter Gresham's XVII Corps skirmishers here confronted the Rebel defenders of Maj. Gen. William Loring's corps.

Loring had assumed command of Polk's corps after its commander was killed by an artillery shell on June 14 while observing Union troop positions from atop Pine Mountain. The lack of underbrush and forest growth meant the defenders could see nearly every movement of the Federals as they left their works. For the Confederates, the attack was a magnificent sight. "Presently, and as if by magic, there sprung from the earth a host of men, and in one long, waving line of blue the infantry advanced," wrote Confederate Maj. Gen. Samuel G. French, whose men were stationed opposite McPherson's Army of the Tennessee. Caught in a maelstrom of cannon and rifle fire, McPherson's Yankees making the demonstration on the Union left halted after a couple of hours, suffering approximately 400 casualties.

All: Library of Congress



Among the generals heavily engaged on June 27 were (clockwise from top right) Confederate Brig. Gen. Francis Cockrell, Confederate Brig. Gen. Alfred Vaughn, Confederate Brig. Gen. Lawrence Ross, Union Brig. Gen. Jacob Cox, Union Colonel Daniel McCook, and Union Brig. Gen. Giles Smith.

To the right of McPherson's army, three brigades from Maj. Gen. John Logan's XV Corps of the Army of the Tennessee attacked east on a wide front. On the ridges of Little Kennesaw and Pigeon Hill, the Confederate brigades of Colonel William Barry and Brig. Gen. Francis Cockrell waited, their lines bent toward each other. The Confederates were positioned in this sector to pour a deadly crossfire into any Yankee regiments that dared to enter the wooded slopes between Little Kennesaw and Pigeon Hill.

On Logan's left, Colonel Charles Walcutt deployed the 46th Ohio in front in a skirmish line, followed by the 103rd Illinois and 6th Iowa in a first line of battle and the 40th Illinois and 97th Indiana in the second. Stepping off shortly after 8 AM, the 46th Ohio's skirmishers struck the picket line 200 yards from the crest of Little Kennesaw, surprising and capturing a large number of Rebel skirmishers, then rushed toward the southern slopes of Little Kennesaw.

The men of the 6th Iowa and 103rd Illinois to their rear were struggling desperately in the dense undergrowth. Walking upright was hardly possible in the tangled vines, and the battle lines quickly unraveled in the dense vegetation. As the two rearward regiments came up, all five regiments merged into one confused mass of men. The men of the 40th Illinois on the left flank of Logan's attack got to within yards of Barry's trenchline on the rugged slopes of Little Kennesaw before falling back.

To Walcutt's right, Brig. Gen. Giles Smith's men were deployed opposite Cockrell's Missouri brigade. Although stretched thin behind their rock and dirt earthworks, the Missourians enjoyed excellent protection from the attackers' fire. They lay their rifle barrels on the top of their breastworks and picked off the Yankees as they came on.

After forming his brigade into a front three regiments wide and two deep, his right flank anchored on Burnt Hickory Road, Smith led his men forward through dense forest and vegetation, struck Cockrell's skirmish line, and drove it back. After pausing to dress their lines, the Yankees rushed up the slope.

Cockrell's Missouri Confederates were fighting against Union troops from their own state (the Union's 6th and 8th Missouri Regiments of Smith's brigade). "Our infantry did not return their

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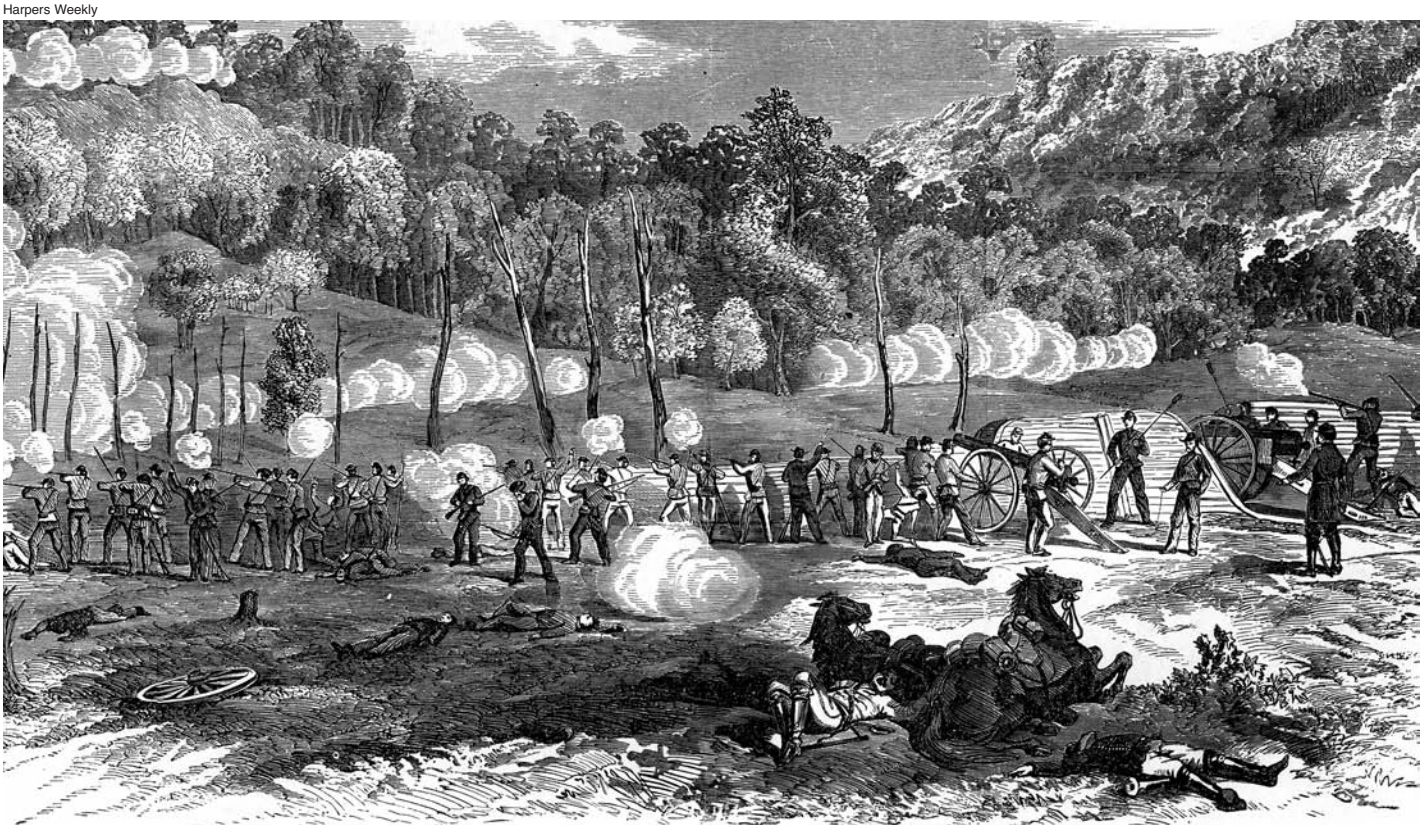


rammers as usual, after loading, but stuck them in the ground and snatched them up when wanted, to save time," wrote Lieutenant Joseph Boyce of the Confederate 1st Missouri Infantry, who found it sickening to fight against fellow Missourians. "No troops could stand such a concentrated fire long." Realizing the assault was futile, Union 2nd Division commander Brig. Gen Morgan Smith (who was Giles Smith's older brother) ordered the attacking units to fall back.

An hour into Logan's attack, Cockrell requested reinforcements from French on Little Kennesaw to the north. French sent two groups of reinforcements, and he personally led the second group into battle. "So severe and continuous was the cannonading that the volleys of musketry could scarcely be heard at all on the line," wrote French.

Colonel Americus Rice's 57th Ohio made it far enough up the slopes to engage Colonel James McCown's 3rd/5th Missouri Regiment (Consolidated) at close range. But the Ohioans could only stand the withering fire from their entrenched foe for about 15 minutes before withdrawing down the slope. During the clash, Rice was struck by Rebel fire in the right leg, left foot, and the forehead.

"The assaulting column had struck Cockrell's works near the center, recoiled under the fire, swung around into a steep valley where, exposed to the fire of the Missourians in front and right flank and of Sears' men on the left, it seemed to melt away or sink to the earth to rise no more," wrote French, who observed the attack.

On Giles Smith's right flank just south of Burnt Hickory Road, the Yankees of Brig. Gen. Joseph Lightburn's brigade formed into two lines, each of which consisted of three regiments. They surged forward against the right wing of Maj. Gen. William Walker's division, held by Brig. Gen. Hugh Mercer's four Georgia regiments.

Six companies of the inexperienced 63rd Georgia were posted in Mercer's front as skirmishers. After serving mainly as garrison troops on the Atlantic Coast, the Georgians had joined Johnston's army six weeks earlier and were eager to prove themselves in battle after Hardee's veterans derided them as "holiday soldiers." When Lightburn's men moved out, the wooded, uneven terrain quickly disordered their battle lines and slowed the advance.

Lightburn's men finally struck the Confederate picket line, and desperate hand-to-hand fighting erupted. Men on both sides fought with bayonets and clubbed muskets. After suffering 80 casualties, the Georgians fell back. Lightburn's troops pursued them through the open fields southwest of Pigeon Hill. With clear fields of fire, Mercer's Georgians poured heavy fire into the Union ranks and checked the advance. Afterward, Lightburn's men redirected their fire at Cockrell's reformed skirmish line, forcing the Missourians to retire. At that point, French ordered three Rebel guns atop the crest to blast Lightburn's advancing troops. With shells from Pigeon Hill and musket balls from both sides of Burnt Hickory Road raining down on the survivors, Lightburn's Yankees were driven back.

Skirmishers from Brig. Gen. Peter Osterhaus's division moved forward on Lightburn's right to support Logan's attack. Much like their fellow Yankees to the north, though, these men came under galling artillery and musket fire that halted their assault.

"When our defeated line came back over the breastworks, I saw a brave color bearer marching erect with his teeth set, and the pallor of death spread over his face," wrote Major Charles Dana Miller of the 76th Ohio Regiment, who participated in the attack. "In his left hand was gripped the flag of the regiment, which he was carrying to a place of safety, while his right arm was shot away with the blood streaming from the ragged stump. He held the colors erect until they reached their former position, then laid down and died."

By 11 AM Logan's entire attack against Little Kennesaw and Pigeon Hill had been repulsed. The three assaulting brigades suffered a combined loss of nearly 600 men. They had nothing to show for their effort.

Thomas's main offensive in the Union center got underway around 9:30 AM. Maj. Gen. Oliver O. Howard instructed Brig. Gen. John Newton to send three of his four brigades against the

ridgeline in front of them, which became known thereafter as Cheatham Hill after Maj. Gen. Benjamin Cheatham, who commanded the troops in that sector. Howard told Newton to deploy the brigades of Brig. Gens. Charles Harker, George Wagner, and Nathan Kimball with their men in columns with the regiments of each brigade lining up one behind the other. His intent was that the columns would be able to punch through the Rebel works.

Wagner and Harker prepared to advance behind a skirmish line from Colonel William Grose's brigade of Maj. Gen. David Stanley's division. Newton withheld Kimball's brigade as a reserve to be deployed as needed as the attack unfolded. Newton's Yankees were opposed by Maj. Gen. Patrick Cleburne's veteran troops, as well as part of Cheatham's division to the south. Cleburne's defenders had erected an imposing array of obstacles in front of their position. The attacking force would have to traverse a branch of John Ward Creek, push through the tangled undergrowth, and confront a line of felled trees and sharpened stakes known as chevaux de frise.

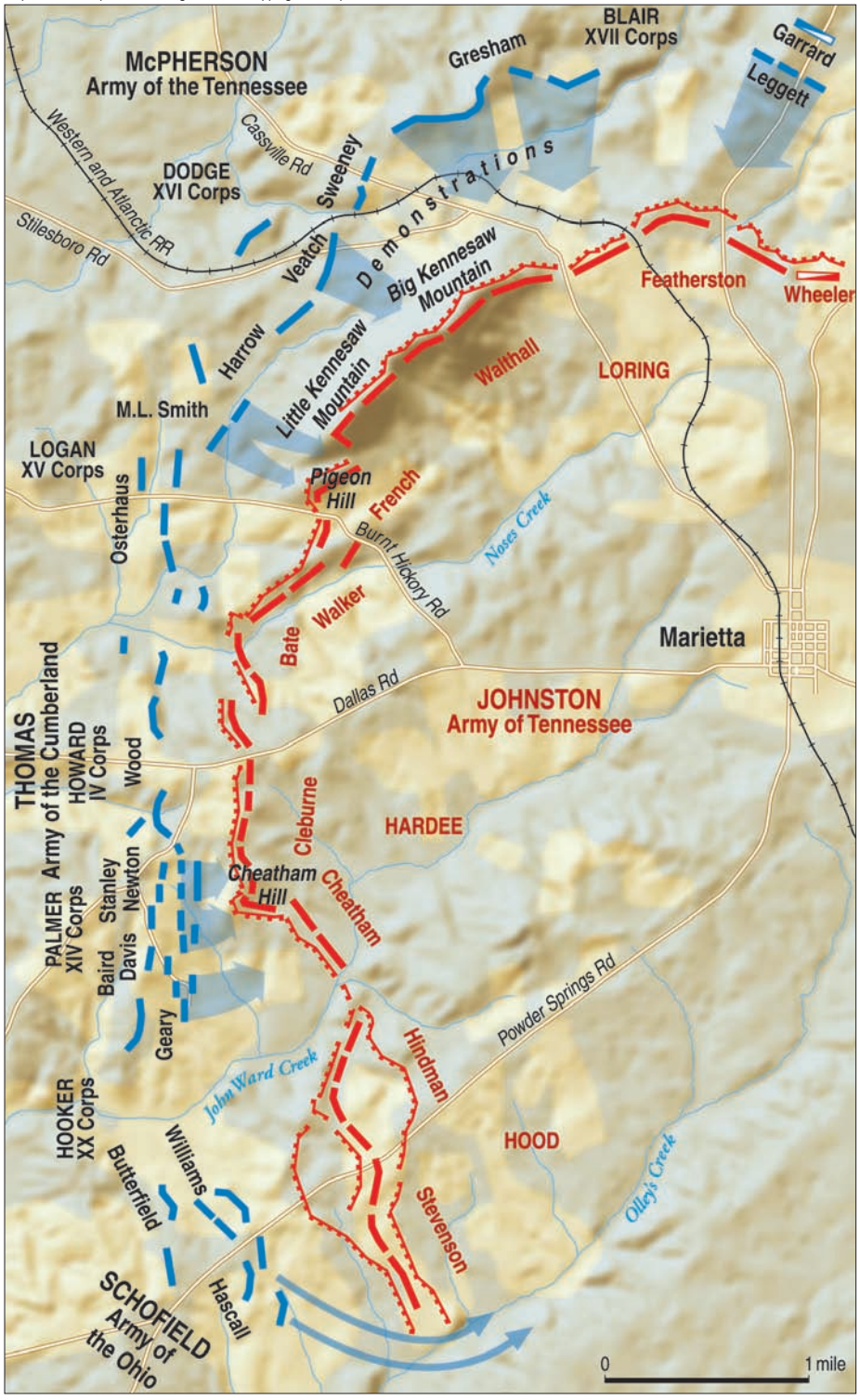
No sooner had Newton's Yankees emerged from the protection of their lines than the Confederates opened up with all of their artillery and musketry in that sector. The Yankees were struck with shot, shell, and musket balls. Cleburne and his veterans were hard fighters, and they were not about to make it easy for the attacking Yankees.

Leaving a trail of dead and wounded in their wake, Wagner's men finally reached the obstacles in front of Cleburne's line. They attempted in vain to clear the impediments from their path. Color bearer Henry Shedd of the 26th Ohio, whose regimental flag received 56 bullet holes during the course of the assault, wrote afterward that he believed Wagner's brigade got to within about 20 yards of the works before the advance ended. As his men went to ground, Wagner received word that Kimball's brigade would be coming up soon on his left.

With the 36th Illinois out in front as skirmishers, Kimball's six other regiments pushed forward into the same difficult terrain and obstructions that were crippling Wagner's attack. The attack was "swept by discharges of grape and canister," wrote Lt. Col. Porter Olson of the 36th Illinois, adding that the Confederates' strong earthworks and heavy infantry fire made carrying Cleburne's works seem like an impossible task.

After two long hours spent struggling through a field under heavy fire, Kimball's men could go no farther. Logan ordered Kimball to pull his men back to the main Union line, in itself a daunting proposition. "The slaughter among our troops at this moment was even greater than when they advanced for the enemy now rose from behind their works, fearless of danger from the retreating force, and fired with greater precision than when the column advanced," wrote Sergeant John Marshall of the 97th Ohio of Wagner's brigade.

To the right of Kimball and Wagner, Harker and his troops were enduring their own ordeal.



ABOVE: Believing the Confederate line was stretched too thin, Union commander Maj. Gen. William T. Sherman planned diversionary attacks on the Confederate flanks with the main attack aimed at the Confederate center. OPPOSITE: Union soldiers advance over rough ground against the Confederate breastworks on the high ground in a period engraving. Following their failed assaults, Union brigades had to endure additional casualties withdrawing from exposed positions.

Harker, who was just 26 years old, had turned down a request to serve as Howard's chief of staff, a position that would have sheltered him from the dangers of battlefield command. An injury he had suffered weeks earlier made it difficult for him to walk, so Harker rode into battle on a white horse, which made him a conspicuous target.

Harker led seven regiments, all of which were arrayed in column, forward toward the Confederate lines. They advanced behind a screen of skirmishers from Colonel Emerson Opdycke's 125th Ohio. Opdycke led his skirmishers forward and captured a good number of their Confederate counterparts. Harker's columns also made good progress. As they neared Cleburne's works, only 600 yards from the Federal lines in this sector, Rebel gunners depressed the muzzles of their 12-pounders to almost fully horizontal and switched from shell to canister ammunition. The lethal canister rounds struck wooden stakes and other obstructions in front of the trenches, sending shards of wood and other debris, as well as clouds of lead balls, into the oncoming Yankees.

Seeing his line faltering, Harker rode forward, raised his hat, and called for his men to follow his lead and carry the enemy's works. When he was within 10 yards of the trenchline, a musket ball struck his arm and passed into his chest. He tumbled from his horse mortally wounded. The loss of Harker, as well as steadily mounting casualties, halted the attack. Command of Harker's brigade devolved to Colonel Luther Bradley of the 51st Illinois. Shortly after he assumed command, he received orders to pull back.

When the ground to the Confederate front in this sector caught fire from muzzle flashes and bursting shells, putting many of the wounded Federals at risk of burning to death, Colonel William Martin of the 1st/15th Arkansas Regiment (Consolidated) stood atop the parapet and raised a white handkerchief to signal a halt to the fighting. "Boys, this is butchery," he shouted. After Martin's offer of a brief ceasefire to allow the attackers to remove their wounded was accepted, Yankees and Rebels alike went to work to move the fallen out of harm's way. A Union officer then handed Martin a pair of pearl-handled pistols as a token of appreciation. Cleburne's line was never seriously threatened at any point by the attack of Newton's division, which lost more than 650 men in three hours.

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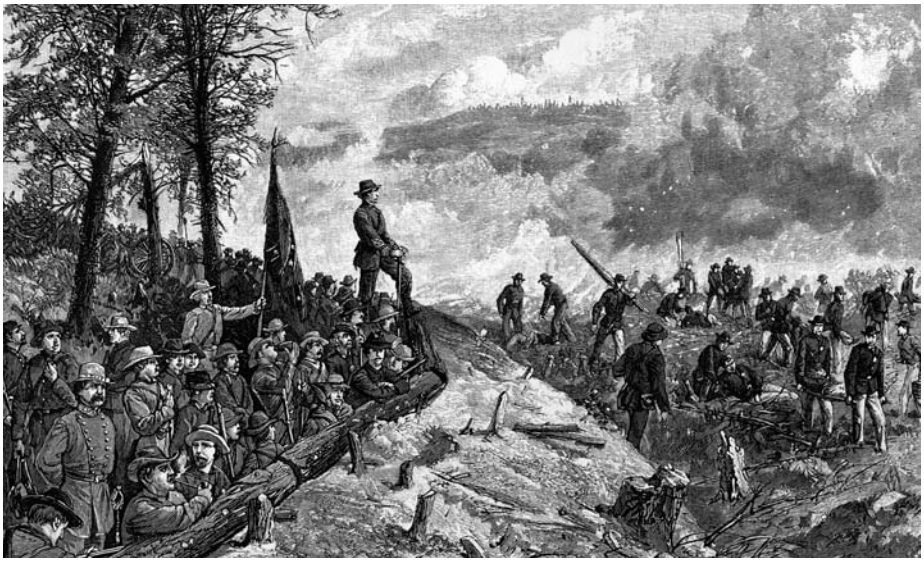


ABOVE: Confederate Colonel William Martin of the 1st/15th Arkansas Regiment (Consolidated), shown standing on the parapet, waved a white handkerchief to signal a halt to the fighting after the repulse of the Union attack in front of his section of the entrenchments. The brief ceasefire allowed both sides to move the wounded out of harm's way. OPPOSITE: Union Maj. Gen. William T. Sherman watches as Union troops advance at Kennesaw Mountain. The Union generals tried different tactics, such as sending their troops forward in dense columns rather than long lines, but they still were unable to punch through the enemy line.

By the morning of June 27, the Rebels of Cheatham's division had held their positions on Cleburne's left flank for a week during which they had endured searing heat, artillery bombardment, and sniper fire. Cheatham had deployed Brig. Gen. Alfred Vaughn's brigade on the same ridge that Cleburne's men held on June 19, then extended Vaughn's line with the rest of his division on the night of June 20. Because that ridge ended on a low hill next to a branch of John Ward Creek, the only suitable defensive ground for the rest of Cheatham's division was located farther to the east. Deployed on Vaughn's immediate left, Brig. Gen. George Maney had to bend back his own line. He placed one regiment on the southern edge of the hill facing west toward the Union position and then put his other regiments facing south. This created what became known as the Dead Angle.

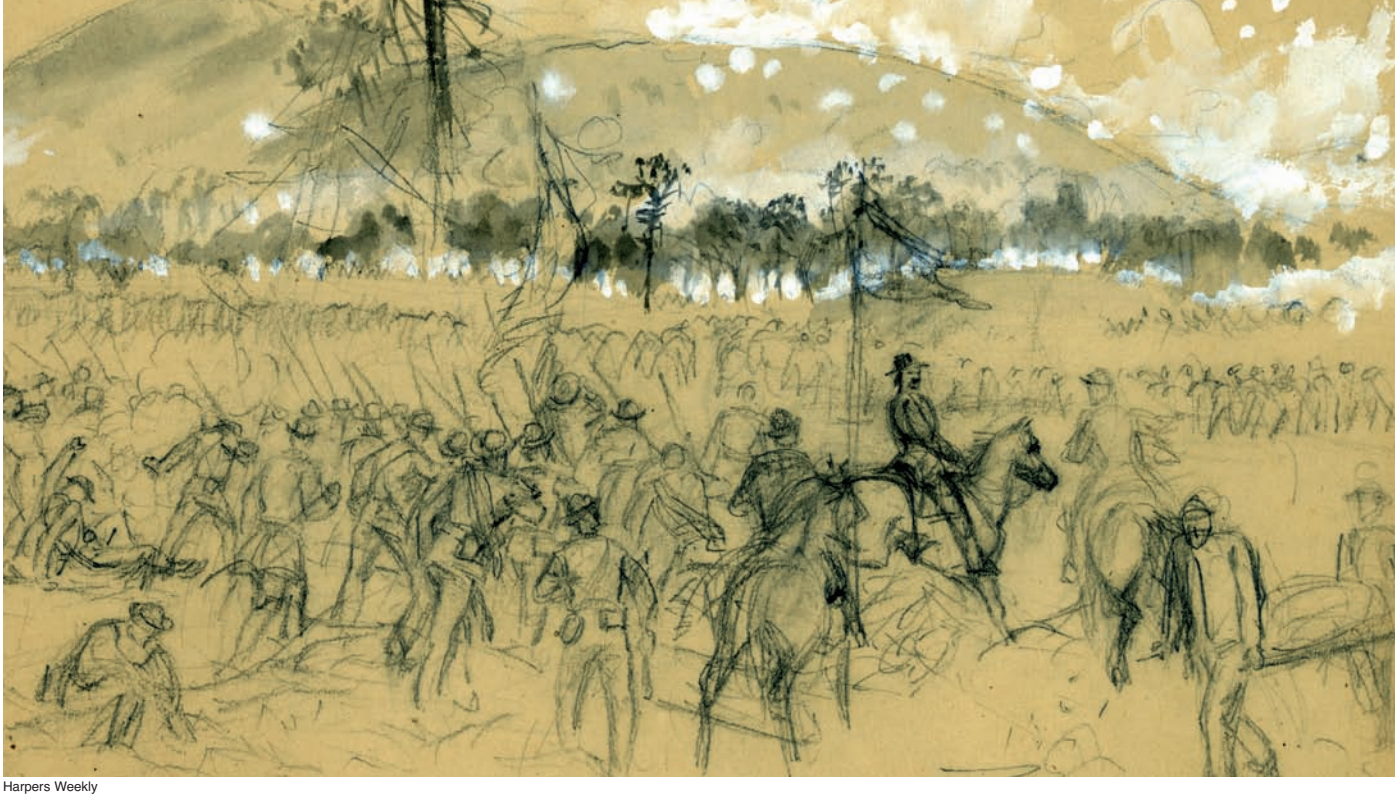
Toiling in the dark, Cheatham's engineers had mistakenly established the main trench line 50 yards too far up the hill, which meant that many of the defenders on the hilltop could not see all of the ground to their front. Four companies of the 1st/27th Tennessee Regiment (Consolidated) totaling 180 men held the section of the Dead Angle facing west, while Maney's other Tennessee regiments faced southward. Eight concealed artillery pieces were arrayed just south of the angle and two more to the north, all positioned to enfilade any Union troops attacking the angle. Union artillery had blasted away some of the head logs on the Confederate trenches at the Dead Angle, which meant that the Rebels were not as well protected as some other parts of the Confederate line.

Brigadier General Jefferson C. Davis, one of the division commanders in the Union XIV Corps, ordered two of his three brigades to assault Maney's position. Like other Union assaults that morning, Davis hoped to overwhelm the Rebel works quickly by attacking in dense columns of regiments rather than in traditional long, thin lines. Having received their orders, Colonel Daniel McCook and Colonel John Mitchell formed their troops for the assault.

In addition to their breastworks, Cheatham's Rebels benefited from infantry obstacles in front of their position, such as rows of sharpened stakes known as abatis, and also artillery unseen by the enemy that fired deadly canister at close range into the oncoming blue ranks. Despite these enhancements to their defense, Cheatham's outnumbered defenders were hard pressed to prevent being overrun by the rushing Yankee tide; however, they rose to the task

"No sooner would a regiment mount our works than they were shot down or surrendered, and soon we had every gopher hole full of Federal prisoners," wrote Watkins. "Yet still the Yankees came. It seemed impossible to check the onslaught."

With the leading regiments of the attacking brigades slowed by stout Rebel resistance, those to the rear soon pushed to the front. As they advanced, Union soldiers leaned forward as if moving into a fierce wind or rainstorm. Slowed by the dense undergrowth and abatis on the slopes of Cheatham Hill, the blue line withered under the heavy fire.



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On Vaughn's right, a pair of 12-pounders enfiladed the left flank of McCook's brigade, leaving the ground littered with dead and wounded Federals. On the other end of the Confederate line in that sector, two batteries pummeled McCook's right flank and fired directly into Mitchell's onrushing troops. Fire in the front and flank produced heavy casualties for the attacking brigades.

"A poor wounded and dying boy, not more than sixteen years of age, asked permission to crawl over our works, and when he crawled to the top, and just as Blair Webster and I reached up to help the poor fellow, he, the Yankee, was killed by his own men," wrote Watkins. "In fact, I have ever thought that is why the slaughter was so great in our front, that nearly, if not as many, Yankees were killed by their own men as by us. The brave ones, who tried to storm and carry our works, were simply between two fires."

Rushing to the top of the Confederate parapet, Colonel McCook stood with his foot on the head log and used his sword to repulse the bayonets of the defenders beneath him. "Surrender, you damn traitors," he shouted just before he was mortally wounded. As McCook was carried to the rear, command devolved to Colonel Oscar Harmon of the 125th Illinois. Harmon also was killed. When Colonel Caleb Dilworth of the 85th Illinois took command of the brigade, he allowed the troops to pull back a short distance to the protection of the so-called military crest, where Cheatham's engineers should have established their main works rather than the actual crest.

Davis sent a dispatch to Thomas at 11 AM informing him that there was no hope of carrying the enemy's line. Newton did the same. Their two brigades had suffered a combined total of nearly 1,500 casualties. Thomas advised that those who could fall back to the main line should do so, but those who could not retreat without suffering additional casualties should wait for nightfall.

The drop in the intensity of the fighting came none too soon for Watkins and his comrades. "When the Yankees fell back and the firing ceased, I never saw so many broken down and exhausted men in my life," he wrote after the war. "I was as sick as a horse, and as wet with blood and sweat as I could be, and many of our men were vomiting with excessive fatigue, over exhaustion, and sunstroke; our tongues were parched and cracked for water, and our faces blackened with powder and smoke, and our dead and wounded were piled indiscriminately in the trenches. There was not a single man in the company who was not wounded, or had holes shot through his hat and clothing." Many of Cleburne's and Cheatham's men taunted the retreating Yankees, screaming "Chickamauga, Chickamauga," because many of those attackers had yelled "Missionary Ridge" during the advance.

While eight Union brigades numbering approximately 13,500 men were conducting major attacks farther north against the Confederate center, Schofield's troops on the Union right quietly maneuvered around Johnston's left flank on the morning of June 17. They achieved a small but significant gain for the Federals with minimal loss.

On Johnston's extreme left, Brig. Gen. William Jackson of the Confederate Cavalry Corps had deployed three of his brigades astride the Sandtown Road south of the Olley's Creek crossing. Cox had devised a plan to get additional Union infantry brigades across Olley's Creek and push south.

The men of Byrd's brigade had crossed the previous day a mile north of the Sandtown Road Bridge and constructed a crude bridge at their crossing point. Early on the morning of June 27, Colonel Daniel Cameron's brigade crossed the bridge and marched south to support a crossing by Colonel James Reilly's brigade. The movement sparked little more than a skirmish as the outnumbered Confederate troopers discovered that three full Union brigades were coordinating an advance. Cox had sent his brigades off at 4 AM. He had pushed his troops relentlessly and had instructed his subordinates that he wanted them to achieve their objectives by 8 AM Cox's movement was meant to divert Johnston's attention from the main attack to his left flank; however, Cox's feint failed in that regard.

Cameron's troopers pushed south to threaten Ross's troopers while Reilly successfully crossed Olley's Creek at 5 AM. All three Rebel cavalry brigades ultimately fell back, after which Cox advanced Cameron and Reilly along the Sandtown Road to a high ridge a mile south of Olley's Creek. By 8:30 AM, Cox's Yankees had established a four-mile line of battle with minimal casualties. Haskell deployed his skirmishers several times losing about 100 men in the process. About the

Continued on page 70

Vanguard of ELEPHANTS

The Macedonian soldiers stood transfixed on the flood plain as the Pauravan army advanced toward them. The ground shook with each step the great lumbering war elephants took as they advanced toward the wide-eyed Greeks. In towers atop the elephants' backs, expert archers fired down on the Greek spearmen.

Never before had the Greeks encountered elephants in battle. Although their commander, 30-year-old King Alexander of Macedon, had devised special tactics to deal with the elephants

ON THE BANKS OF THE HYDASPES RIVER IN 326 BC, ALEXANDER THE GREAT WAS NEARLY DEFEATED BY THE MIGHTY ARMY OF KING PORUS WITH ITS CORPS OF ELEPHANTS.

based on discussions with local allies, the average soldier had scant knowledge of the precautions their king had taken.

Soon the monstrous beasts, some of which let out an otherworldly scream as they waded into the Greek lines, were grabbing Greek soldiers with their great trunks and hurling them through the air. The Greek foot soldiers recoiled with shock and backpedaled toward the ferry landing on the Hydaspes River. Their officers shouted for them to hold their ground to no avail. Alexander had never been beaten in combat in a decade of conquest, but on this spring day in 326 BC he seemed closer to defeat than ever.

For the first time in the history of the Indian subcontinent, a large invading army had come from the west. Before Alexander's arrival, India had only received small Persian expeditions. During the days leading up to the battle, the Macedonian infantrymen had learned of some strange, monster-like creatures that the Pauravan army employed in battle. The renowned Macedonian phalanx already had defeated many enemies. The Macedonians had shattered masses of Persian infantry, Greek mercenary hoplites, Scythian heavy cavalry, and the forces of many different Asiatic tribes, but elephants were something that went beyond their wildest comprehension.

BY GABRIELE ESPOSITO

The same feelings of fear and terror also were present within the army of King Porus of Pau-

The Pauravan elephant corps nearly broke the Macedonian center, but it held long enough for the crack Macedonian heavy cavalry to encircle the enemy.

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Alexander the Great relentlessly pursued the Persians, defeating not only their main army but also those of their allies in central Asia who resisted his rule.

rava. He and his soldiers had heard many stories about the conquests of a young Macedonian king who led his men in battle as a god and who had never been defeated before in a pitched battle. Alexander had marched across the wide breadth of Asia, from the mountains of Anatolia to the steppes of Central Asia. He had fought in dozens of battles and skirmishes and been wounded many times, but he had always won.

The great conqueror had decided to continue his eastern march by heading across the plains of Punjab in search of more glory. A decisive battle for the history of India was going to be fought. It would be a battle that would shock Alexander, his army, and the entire Macedonian Empire.

In the months that followed the Battle of Gaugamela fought on October 1, 331 BC, King Darius III found temporary refuge in the satrapies of Bactria and Sogdia, which were ruled by the powerful governor Bessus. The latter had commanded the left wing of the Persian forces at the Battle of Gaugamela, comprising for the most part skilled warriors from his satrapies. Bessus had been able to survive, together with some part of his forces. He had fled to Ecbatana with Darius and then followed him when the great king decided to move east. Darius intended to raise a new army in the satrapies of Central Asia and undertake an offensive against Alexander.

In an effort to bring the war to an end, Alexander pursued Darius the following year. Bessus decided to organize a conspiracy against King Darius, with the other satraps of the Central Asian provinces. The traitors put Darius in golden chains, hoping that by giving their king to Alexander they could obtain some political advantage. Bessus was the most ambitious of the satraps. He hoped to replace Darius as the new Persian monarch and rule the vast eastern provinces of the Persian Empire.

The rebel satraps tried to surrender the deposed king to the Macedonians, but Alexander was not inclined to negotiate with them. He ordered his troops to continue their pursuit of the remaining Persian forces. But Bessus and the other satraps stabbed Darius and left him dying in a cart. Bessus immediately proclaimed himself king of Persia, adopting the name of Artaxerxes V. In many ways, his self-proclaimed ascension was logical since the Satrap of Bactria was traditionally the Persian noble next in the line of succession to the Persian throne.

The death of Darius had not led to an end of the war, which now continued between Alexander and Bessus. As a result, the Macedonians began their conquest of Central Asia, which would finally lead them to India. In 329 BC, the Macedonian army entered Bactria by way of the Hindu Kush mountain range, which had been left undefended by Bessus. Bessus wanted to move his forces farther east to weaken the morale of the Macedonians and make their supply routes too long. Having a superior knowledge of the terrain, he probably intended to conduct a guerrilla campaign against Alexander and his forces. This would entail a scorched earth strategy designed to weaken the Greeks through attrition.

After crossing the River Oxus, which marks the modern border between Afghanistan and Tajikistan, the Bactrian mounted troops deserted and abandoned Bessus, who was seized by several of his chieftains and handed over to the pursuing Macedonians. The last of the Persian kings was tortured and then executed in punishment for dethroning the legitimate monarch Darius.

Alexander had conquered nearly all of the territories of the Persian Empire, but some of the border regions had not yet accepted him as ruler and continued to resist. Oxyartes, one of

the satraps who had betrayed Bessus, became the new leader of the Persian resistance forces. Alexander continued his advance north, capturing Samarkand and reaching the River Jaxartes, where he founded the city of Alexandria Eschate (Alexandria-the-Farthest).

Despite these successes, the Macedonians had to face a number of uprisings from the indigenous Sogdian and Scythian tribesmen, who remained loyal to Oxyartes. These mounted warriors of Central Asia used guerrilla tactics against the Macedonians, relying on their mastery of horsemanship and archery to attack the invading forces from a distance. During these small clashes Alexander lost more soldiers than in any other of his battles or campaigns. His soldiers grew weary of the skirmishing and did not see the point of campaigning in such an insignificant and poor region of the Persian Empire.

Alexander soon had a full-scale mutiny on his hands, which forced him to address his army's internal problems. The Macedonian military leaders had never faced this sort of warfare before and thus had to develop new military tactics to defeat their nomadic enemies. They resolved to use catapults and archers in battle and to capture enemy strongpoints by siege even though they knew that this would be a time-consuming process.

Despite being injured on more than one occasion and suffering from dysentery, Alexander was ultimately able to win a decisive battle against the Scythians on the River Jaxartes. With the decisive defeat of the northern tribes, the Sogdians in the south decided to concentrate all their forces at a fortress called the Sogdian Rock. The stronghold, situated atop a large escarpment, was considered unconquerable by the peoples of Central Asia. The actual site of the Sogdian Rock is still debated to this day, but most archaeologists believe it was located near Samarkand. The Sogdians had a strong defensive position. After arriving at the site, Alexander grasped that the only way to assault the enemy position was to use a picked force of elite soldiers with mountaineering skills. They would scale the mountaintop fortresses with ropes and attack the defenders by surprise. The Macedonian leader called for volunteers, explaining to his soldiers the difficulty of this special mission, and 300 men volunteered.

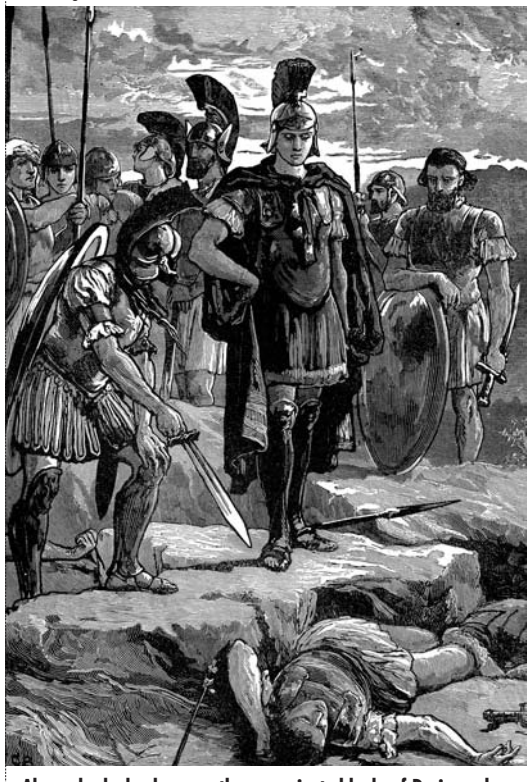
Oxyartes of Bactria had previously sent his wife and daughters to take refuge in the fortress. He considered the Sogdian Rock the safest place for his family, but now the Macedonian soldiers were going to storm that position, too. The fortress did not have a large garrison, but it was well provisioned for a long siege. Alexander had asked the defenders to surrender before the attack, but they refused. They said that he would need "men with wings" to capture their stronghold.

Fortunately, Alexander could count on the volunteers who had offered to climb over the escarpment in exchange for the reward promised by their king. These men had gained a lot of experience in rock climbing from the previous sieges of the Central Asian campaign and were quite confident in the positive outcome of the delicate mission. Using tent pegs and strong flaxen lines, the 300 soldiers climbed the cliff face at night. They lost about 30 men during the difficult ascent. In accordance with their king's orders, they signalled their success to the troops below by waving pieces of cloth. Elated at their success, Alexander sent a herald to shout the news to the enemy's outposts to compel their surrender. The defenders, who were demoralized by the incredible achievement of the Macedonian climbers, decided to capitulate.

Alexander showed great magnanimity toward the captured Sogdians. He had no desire for revenge. He sought a durable peace in Central Asia so that he might embark on even more ambitious plans of conquest. To cement his ties with the tribal peoples of Central Asia, Alexander married Roxana, the daughter of Oxyartes. The decisive victory marked the end of Alexander's Central Asia campaign and his conquest of the Persian Empire.

At that point, Alexander intended to invade India. But his soldiers were exhausted from the extended campaigns and the numerous hardships they had endured. Believing their sacrifices had finally come to an end, they longed to return to their homes in Macedon. Alexander, excited at the prospect of conquering an exotic land such as India, had no intention of stopping. He showed little consideration toward the feelings of his loyal veterans. Despite his soldiers' wishes, Alexander led them east toward India in 326 BC.

Eon Images



Alexander looks down on the assassinated body of Darius, who was dispatched by the Bactrian satrap Bessus.

Alexander was now the absolute ruler of Asia and presented himself as the direct heir of Darius. As such, he asserted his rights over the territories of northern India on the upper reaches of the Indus River, which had previously been part of the Persian Empire as the Satrapy of Gandhara.

These territories had been conquered during the rule of the early Achaemenid monarchs who followed Cyrus the Great. As a result, Indian military units, most of which were archers, had participated in the Persian campaigns against Greece. But Persian control over the Indian Satrapy of Gandhara had diminished by the time of Alexander's arrival, and India was free from foreign rule.

Searching for a pretext to expand into the Indian subcontinent, Alexander decided to impose again the rule of the Persian Empire over northern India. He invited all the chieftains of the former Gandhara satrapy to submit to his authority. One of these, the ruler of Taxila named Ambhi, readily accepted Alexander's request. The Kingdom of Taxila soon became an important ally for the Macedonians. Taxila was an important ally both because of its location adjacent to India and because it had a large population that could furnish a substantial number of allied troops. But the other leaders refused Alexander's request and prepared to fight against the invaders coming from the north. The most important of the Indian rulers who opposed Alexander was Porus, the ruler of the powerful Kingdom of Pauravas.

The kingdoms of Ambhi and Porus were divided by a long regional rivalry despite having the same ethnic origins. As a result, Alexander's alliance with Taxila soon led to open war with the bordering Kingdom of Pauravas. Before descending to the plains of the Punjab region, though,

Alexander had to fight some costly campaigns against the fierce warrior tribes of northern India.

Alexander moved quickly to secure his northern flank from potential raids that might be launched by the Indian tribes of the Pamir and Himalaya mountain ranges. These tribes were the Aspasioi of the Kunar Valley, the Guraeans of the Panjkora Valley, and the Assakenoi of the Swat and Buner Valleys. All these tribes were fierce and warlike. Alexander's campaign against them is known as the Cophen Campaign, which takes its name from the river that the Macedonians followed during their advance. The Macedonians marched swiftly along the Cophen River. As they marched to the Indus, they subjugated each village and city through which they passed.

Once the Macedonian army arrived at the Indus, Alexander ordered his troops to build a bridge as quickly as possible. The Aspasioi attacked the Macedonians, but the Macedonians prevailed and burned their opponents' capital to the ground. The Guraeans adopted a different strategy. They assembled a large military force for a pitched battle. Despite their superiority in numbers, Alexander defeated them as well at Arigaeum.

Alexander's next opponent was the Assakenoi. The Macedonians marched on their capital at Massaga. The Assakenoi boosted their army with the addition of 7,000 elite mercenaries from the Indian territories east of the Indus River. Because of their preparations, the Assakenoi were confident that they could defeat the invaders.

Wikimedia

The Macedonian phalanx fought tenaciously against the vanguard of Pauravan war elephants to buy time for Alexander's heavy cavalry to vanquish the enemy's light cavalry.

As soon as Alexander reached the outskirts of their capital, he launched a surprise attack. Alexander ordered his men to fall back to a hill one mile from Massaga. During their pursuit of the Macedonians, the Assakenoi became disordered. The Macedonians, who had retained a perfect order during their withdrawal, redeployed on the high ground. Alexander ordered his archers, light infantry, and light cavalry to counterattack. The Macedonians repulsed the Assakenoi attack then switched to the offensive. Alexander's light troops advanced followed by the phalanx under the direction of Alexander, who was wounded while leading his troops.

The remaining Assakenoi warriors and mercenaries were obliged to retreat inside Massaga. Alexander then besieged the city. Although the Macedonians were proficient in siege operations, they encountered various difficulties on this occasion. The mercenaries put up a fierce resistance, repulsing various Macedonian attacks and launching raids outside the walls. Alexander's forces had to build a siege tower with a long bridge and a terrace to attack the walls, but the siege machines were not enough to win the battle. Alexander even employed some of the same veterans who had stormed Tyre. The mercenaries ultimately surrendered when their commander was killed by a Macedonian arrow.

Afterward, Alexander continued to press his offensive against the tribes of northern India. Other fortified positions had to be assaulted and conquered by his forces, including the difficult siege operations against Aornos. By the spring of 326 BC, Alexander had secured his northeastern flank from any possible menace, and his forces were in full control of the Indian valleys located south of the Pamir and Himalayas. At that point, the Macedonians were ready to advance into the Punjab.

At the time of Alexander the Great and Porus, Indian armies included four different categories of troops: infantry, cavalry, chariots, and elephants. The infantry element was the most numerous, while chariots and elephants were the most prestigious. The Sanskrit epic poem *Mahabharata* equates the proportions of one elephant to one chariot, three cavalrymen, and five infantrymen. The army raised by Porus and deployed against Alexander included 200 elephants, 420 six-man chariots, 6,000 cavalrymen, and 30,000 infantrymen, according to the Greek historian Arrian. This was an impressive army for ancient times.

From a tactical standpoint, the Indian infantry and cavalry had no active or significant roles on the battlefield. Their main function was to protect the elephants and chariots by performing auxiliary duties. Each elephant or chariot received a certain number of infantrymen and cavalrymen. Pauravan armies often included contingents of mercenary archers and light infantrymen. The main difference between the tribal armies of northern India and those of the bigger states located in the plains was in the number of elephants and chariots. Due to the geographical nature of their territories, the northern Indian tribes had no chariots and few elephants. With the exception of nobles mounted on elephants or chariots, all of the Pauravan warriors deliberately chose not to wear armor.

All the components of the Pauravan army were lightly armed. The cavalry was entirely composed of light mounted javelin troops, while the infantry included front-rank spearmen, javelin troops, and archers. The soldiers in the front ranks were armed with spears and tall body shields but had no helmets or cuirasses. The javelin troops on foot were equipped with smaller shields and javelins and formed the largest part of the infantry.

The archers constituted the elite arm of the Pauravan infantry. Their superiority was due to the excellence of their main weapon. They were armed with heavy and powerful bamboo bows. Their arrows were 4½ feet long and were made of cane or reed and flighted with vulture feathers. The arrowheads usually were made of iron, but sometimes they were made of horn. The use of poisoned arrows apparently was forbidden during the wars between Indian states, but in all likelihood they were employed against the foreign invaders led by Alexander.

Kings and nobles, fighting on elephants or chariots, were armed with javelins or spears and protected by brass helmets and scale armor. For secondary weapons the Pauravan warriors of Alexander's time used swords, maces, and clubs. The former had a broad blade that was three cubits long and was used for powerful two-handed cutting blows, brought down from above the head. Clubs could be used in one hand, two hands, or thrown. Pauravan fighters were proficient with these primitive but highly effective weapons.

Alexander's main army entered northern India via the Khyber Pass. After combining with the allied army of Taxila, the Macedonian forces advanced against King Porus and his kingdom.

Porus was the head of one of the most significant regional powers of northern India. He was strong, tall, and courageous. As soon as Alexander formed an alliance with Taxila,

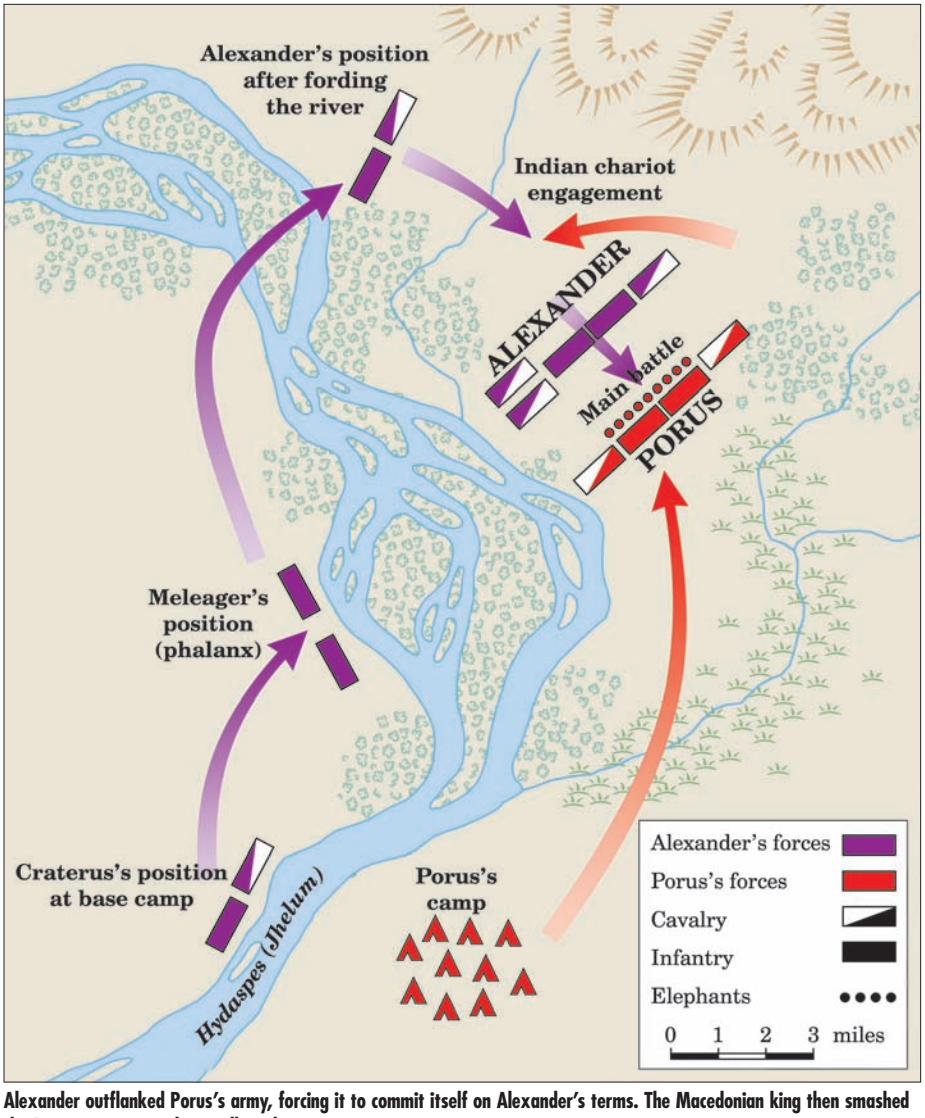
Porus had begun assembling an impressive army to face the Macedonians in a large pitched battle. Unlike the northern tribes that had just been conquered by Alexander, Porus could not use the mountains or a complex of fortified cities to slow down the advance of the invaders, for his kingdom was located on the plains of Punjab. His only real advantage lay in assembling an army that would dwarf the one fielded by Alexander.

Porus deployed his troops along the east bank of the Hydaspes River, which marked the border between his realm and that of Taxila to oppose Alexander's passage. He expected Alexander to wait for monsoon season to end before attempting to cross the river. Porus relied heavily on the Hydaspes, which at that time of year was swollen by monsoon rains and the melting snows of the Himalayas, to delay the Macedonian advance. The mighty Hydaspes was over a mile wide, deep, and swift. Porus's plans would been perfect in an Indian war, but he was facing a different opponent. Alexander had great engineering skills, and he had surmounted all manner of challenges up to that point. Porus did not have an accurate measure of the enemy he was facing.

Alexander's army encamped opposite Porus's main defensive position on the east bank of the Hydaspes. Alexander successfully deceived Porus into believing that he fully intended to wait for the monsoon season to end. As a ploy, Alexander ordered large shipments of food and supplies from his allies in Taxila. In reality, the Macedonian commander had no intention of waiting.

Alexander's army was smaller and more nimble than that of his Indian opponent. Alexander's army consisted of veteran Macedonians augmented by contingents of troops from various warrior peoples that he had subjugated in Asia. Alexander's army was less Macedonian than ever before. He had gradually transformed his army into a multinational force that retained its core of elite Macedonian phalanx and heavy cavalry.

The new Asiatic troops raised by Alexander would play a fundamental role in the upcoming battle. Alexander's Asian auxiliaries were trained and equipped in the usual fashion of the Macedonian phalanx. This caused some anger among the Macedonian veterans, but it enabled Alexander to replace his losses and expand his infantry. Alexander allowed the Asiatic cavalry to fight in its traditional role as light cavalry. He knew well that the Asiatic light cavalry, which relied on javelins and the bow and arrow, would be useful in harassing the war elephants of Porus's Indian army.



Alexander outflanked Porus's army, forcing it to commit itself on Alexander's terms. The Macedonian king then smashed the Pauravan vanguard as well as the main army.

Porus enjoyed the advantages most armies enjoy when defending their own territory. For example, he had a short supply line and could hold his defensive position indefinitely. He intended to carefully guard the best possible river crossings and eliminate each wave of Alexander's army as it came ashore.

To deceive his opponent, Alexander built numerous campfires along his side of the river, marching his men back and forth in formation; meanwhile, his scouts searched for the best possible crossing spot. "Alexander's answer was by continual movement of his own troops to keep Porus guessing: he split his force into a number of detachments, moving some of them under his own command hither and thither all over the place, destroying enemy possessions and looking for places where the river might be crossed," wrote Arrian. Porus's forces stationed on the west bank of the Hydaspes initially shadowed each movement of the enemy on the opposite bank, but after a while they stopped. Porus eventually came to believe that all of the marching was nothing more than a diversion designed to confuse him.

After a long and tedious search, Alexander's scouts found a suitable crossing 18 miles upstream from the Macedonian camp at a heavily wooded bend in the river. Alexander believed it would offer good cover for his troops. To keep Porus unaware of his crossing, Alexander left General Craterus in the camp opposite Porus's position. Alexander instructed Craterus to wait until the battle was underway to lead his reserve troops across the river.

The Macedonians arrived at the intended crossing during a heavy thunderstorm. The river could not be forded because of its depth, so Alexander ordered his men to construct rafts made from their tents. Alexander also ordered his engineers to haul as many as 30 boats used by his

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A 14th-century illustration of Alexander's great victory at the Hydaspes shows the adversaries dressed in the style of the Middle Ages. Hydaspes was the final chapter in Alexander's legendary military career.

army to cross the Indus to the Hydaspes crossing. Alexander's main force was composed of heavy cavalry, mounted archers, and various infantry units. Arrian says he had 6,000 foot soldiers and 5,000 horsemen. The troops cast off from the east bank under cover of darkness. The crossing did not go smoothly. Instead of reaching the opposite shore, the Macedonian soldiers landed on a large island located in the middle of the river. From the island to the opposite bank, the Macedonian soldiers had to swim since the channel between the island and the opposite shore was too narrow for the boats and rafts.

After reaching the opposite shore at dawn, Alexander regrouped his forces and put them in battle order. Some of his infantry units had not yet arrived, but Alexander advanced all the same. A defensive screen of Asiatic mounted archers, which included the famous Scythian archers, was placed in front of the advancing army to protect it.

Taken by surprise by the invaders, Porus tried to gain some time to deploy his troops. He sent a picked force of 3,000 cavalrymen and 120 chariots against the Macedonians led by his son. The Indian vanguard fought with great courage, but it was no match for Alexander's heavy cavalry. Porus's son was slain in the initial clash.

Next, Alexander led his army toward the Indian camp. After six miles, he halted to wait for the rest of his infantry to arrive. Alexander had no intention of making the fresh enemy troops a present of his own breathless and exhausted men, so he paused before launching the main attack.

Meanwhile, Porus deployed his main force for battle. He had approximately 20,000 cavalry, 4,000 light cavalry, and 200 war elephants. Porus did not mass his elephants together but instead placed them at regular intervals. His light cavalry was stationed on both flanks behind a screen of six-man chariots. The Pauravan infantry phalanxes, which were not as well trained or strong as the Macedonian phalanx, were placed not only behind the elephants but also between them. Porus took his position in the center of the line mounted on his elephant.

Alexander deployed his infantry phalanxes in the center with a protective screen of mounted archers and light cavalrymen in front of them. He took up his usual position on the extreme right with the Companions, the elite cavalry of his army. On the opposite flank, Coenus prepared to lead additional cavalry against the Pauravan right flank.

The battle began with the advance of Alexander's light cavalry, which pelted the enemy elephants with a furious rain of javelins and arrows. At the same time, Alexander led the bulk of his cavalry against the Pauravan left flank. Coenus's attack against Porus's right wing caused no particular difficulties to the Indians, who were able to contain the Macedonian cavalry.

It was a completely different story on the Indians' right, though. Alexander led his heavy cavalry in a spirited charge that drove back his adversaries. The effect of the Macedonian cavalry attack precipitated a crisis for Porus's left wing. To face the emergency, Porus sent part of his cavalry from the right to circle back and help the left wing against Alexander.

Shortly afterward, Porus ordered a general advance of his elephants against the Macedonian phalanxes. The elephants, which were organized into a separate corps, were used as shock troops. They were frequently used during the period against enemy cavalry because horses

had a terrible fear of the animals and recoiled at their strong smell. But Porus's elephants were not facing cavalry but rather a compact mass of heavy infantry. The psychological effect of the encounter on the Macedonian pikemen was unknown because it was the first time they had encountered elephants in battle. Likewise, Porus had no idea how his elephants would stand up to disciplined infantry.

The elephants charged into the Macedonian ranks, trampling the soldiers in their path. The Macedonians seemed on the point of breaking after the initial charge of the elephants. But the veteran infantrymen, who had faced all manner of enemies in their long trek from Macedon to India, began almost immediately to reorganize themselves. They gradually pulled back without breaking their ranks. Meanwhile, Alexander's Asiatic horsemen harried the elephants from the flank, closely cooperating with the specially trained light infantry that stabbed the elephants' legs.

Over time, the wounds Alexander's tenacious foot soldiers inflicted on the elephants caused them to turn around and head for the rear. But the Macedonian cavalry had by then swung behind Porus's army. The momentum then turned in Alexander's favor. The Macedonian phalanxes had switched to the attack. Porus's poorly disciplined infantry could not stand up to their Macedonian counterparts.

Porus's elephants tired quickly, and their charges against the Macedonian infantry grew feeble as time passed. The elephants, maddened by the harassing attacks against their flanks and legs, then began to rampage through the dense ranks of Indian infantry as they sought to escape. This caused more damage to the Indian infantry than was inflicted by the enemy. It was not long before great gaps had been opened in the Indian infantry to be exploited by the Macedonians. Alexander's phalanxes smashed into the lightly equipped Indian infantrymen, who were no match for them. Porus's army by then was in complete disarray.

Coenus moved quickly to exploit the situation. He led a contingent of cavalry against the horsemen on the extreme right of Porus's army. After driving them off, he also swept into the Indian rear to complete the envelopment of Porus's hapless army. Porus's left flank, which already had been routed by Alexander's charge, was struck from behind both by Alexander's horse and those led by Coenus. The only escape route left for Porus's troops was to try to cross the Hydaspes. But Craterus brought Alexander's reserve across the river, arriving on the battlefield at a crucial moment and adding their additional weight to the Macedonians' final attack.

Porus remained on his elephant throughout the battle and witnessed the complete destruction of his army. He had fought hard and as a testament to his valor had suffered severe wounds. The proud king could not accept defeat, though, and he encouraged his men to fight on.

Alexander, full of admiration for Porus, approached the defeated king with the intention of saving his life. As the carnage wound down, Alexander asked Porus how he wanted to be treated. The Indian leader responded that he wanted to be treated as a king. Alexander respected this request and told Porus that he would be able to remain king but must pledge his allegiance to Alexander. With little choice, Porus agreed to the terms. Following the battle, Porus became one of Alexander's satraps. Alexander enlarged his kingdom by adding many of the territories he had conquered during the Cophen Campaign.

Alexander's veterans and his allied soldiers had crushed Porus's army. The Indian losses amounted to 12,000 killed, wounded, and missing, and 9,000 captured. In contrast, Alexander's losses amounted to 1,000 men. One of the Macedonian casualties was Bucephalous, Alexander's beloved horse, which died from wounds he suffered during the height of battle. It was a bittersweet moment for the great Macedonian king. As a special tribute to his beloved horse which had served him faithfully since his first adventures, Alexander founded the city of Alexandria Bucephalous on the west bank of the Hydaspes.

Wikimedia

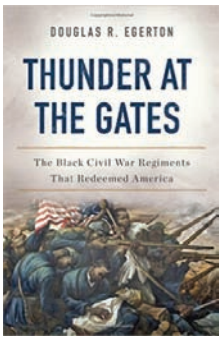
Porus fought in the thick of the battle and received multiple wounds as a result. Having earned Alexander's respect, Porus was allowed to remain on his throne after taking an oath of fealty to his Macedonian overlord.

Alexander's great triumph on the Hydaspes would be his last battle. His soldiers were too exhausted to continue the conquest of India. What is more, they were not inclined to face other Indian armies with elephants. In addition to the human cost of continuing the advance, Alexander's army also would have had to cross the Ganges River, which was much bigger and wider than the Hydaspes. Once across, it would face the main army of the Nanda Empire. This army had 3,000 elephants and far greater numbers of cavalry and infantry than Alexander possessed, even if his army was heavily supplemented with Asian allies.

The restless Macedonian soldiers, eager for news from home, compelled Alexander to march back to Babylon. The Macedonian king, having fought more battles than many of history's greatest commanders, boarded a ship that bore him down the Indus to the Indian Ocean. His army marched south to join him and they began the long trek back to Babylon. Three years later, in 323 BC, Alexander died in the palace of Nebuchadnezzar II in Babylon. Despite being outnumbered most of the time and fighting a wide variety of adversaries with different types of troops and tactics, Alexander never lost a battle. As he did at Hydaspes, Alexander showed that he could adapt and outfight any army no matter how different it was from his own. □

By Christopher Miskimon

African American soldiers fought the Confederacy with valor, but they struggled mightily against prejudice in their quest for acceptance.



THE MEN OF THE 54TH MASSACHUSETTS INFANTRY REGIMENT began a hard march at 8:30 AM on February 20, 1864. They were near Olustee Station, Florida, where they formed part of a force sent to disrupt the Confederacy's food supply chain. They were already tired from previous marches and stopped to catch their breath at the top of each hour. At about 2:00 PM, having covered 16 miles, they stopped. As they rested, the crackle of musketry sounded from ahead, followed by the booming of cannons. "That's home-made thunder!" said one soldier. The men grabbed their rifles and cartridge boxes, leaving their packs behind so they could move quickly.

As they closed the two miles to the battlefield, they passed wounded men and stragglers, including men from the 8th United States Colored Troops, a green unit. They called to the Massachusetts men, "We're badly whipped! You'll all get killed!" The Confederates were well entrenched in a wooded area. The corps commander, Brig. Gen. Truman Seymour, arrived on horseback. "The day is lost," he said to the 54th Massachusetts' white commanding officer, Colonel Ned Hallowell. "You must go in and save the corps." Hallowell led his regiment to the left while other Union units went to the right. They charged forward. Nearby a badly wounded New York regiment was so impressed by the courage of the black soldiers that they rallied, fixed bayonets, and joined the 54th Massachusetts.

The battle went on for more than two hours. The 54th Massachusetts stood its ground and fired volley after volley into their gray-clad enemy. Some of the new recruits were so nervous they forgot to withdraw their ramrods after reloading and sent them flying at the rebels. A sergeant told them to drop the rounds down the barrel and smack the butts of their rifles against the ground to seat them. Some actually improved their rate of fire that way. Before long they began to run low on ammunition. The unit next to them mounted a charge but was bloodily repulsed. That regiment began to fall back, leaving the 54th Massachusetts' flank exposed. Seymour wanted to retreat, but the African American soldiers did not want to give ground. Confederate cavalry was beginning to hit both flanks; however, so Hallowell had no choice but to order them back. It took some coaxing, but finally the men complied.

Seymour, who previously had little use for black soldiers, acknowledged the 54th Massachusetts' steadfastness by assigning them to the rear guard. Every 200 yards they would stop and fire a volley at the pursuing cavalry. The army retreated to the nearby town of Baldwin. The 54th Massachusetts arrived there at 1 AM, having

The 55th Massachusetts Infantry, one of three African American regiments from the Bay State, marches through the streets of Charleston, South Carolina, in February 1865.

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faced another grim test. The Union army had lost the battle but the regiment had proved itself the best among its ranks. Tragically, the retreat meant the wounded were left behind. Vengeful Confederate soldiers, angry at the black men who had faced them as equals, killed most of the wounded on the field, even though a few officers tried to stop the murders. A month later, however, three Confederate deserters appeared at their camp to surrender. "You black soldiers fight like the devil," they said. "We know all the Massachusetts flags. You peppered us like the devil."

The 54th Massachusetts is famous today thanks largely to the 1989 film *Glory*. Its sister African American regiments, the 55th Massachusetts Infantry and 5th Massachusetts Cavalry are less so, although all three deserve recognition for their achievements during the American Civil War. These units and the legacy of African American soldiers are deservedly advanced in ***Thunder at the Gates: The Black Civil War Regiments That Redeemed America*** (Douglas Egerton, Basic Books, New York, 2016, 429 pp., maps, illustrations, notes, bibliography, index, $32.00, Hardcover).

The first commander of the 54th Massachusetts, Colonel Robert Gould Shaw, fell leading the regiment forward into the teeth of Confederate guns at Fort Wagner in Charleston, South Carolina, on July 18, 1863. "Tell it with pride to the world!" These words were written to Shaw's family following his death. They referred to the regiment and its stand alongside white units. That is what the author has done in this book. He informs readers of the achievements, struggles, and suffering of the three African American Massachusetts regiments that joined the fight against the Confederacy. It is a triumphal tale well told, although the men of these units never received the thanks they so richly deserved. The accounts of the unit's veterans are expertly woven into the story. The work sheds fresh light on a subject which, although well known, has never before been conveyed in such rich detail.

Pax Romana: War, Peace and Conquest in the Roman World (Adrian Goldsworthy, Yale University Press, New Haven, CT, 2016, 513 pp., maps, illustrations, notes, bibliography, index, $32.50, Hardcover)

The Pax Romana is widely thought of as a period of relative peace that the Romans enforced at the point of a sword. This is misleading, however, as the Romans maintained their empire through warfare, dominance and enslavement. Romans fought conflicts against external opponents, internal rebellions and sometimes against each other. There was no plan to create the empire; rather, it grew over centuries as the warlike Romans pushed outward wherever opportunity appeared. They neither

simulation gaming *By Eric T. Baker*

KALYPSO RETURNS WITH A BELOVED REAL-TIME STRATEGY SERIES, AND UBISOFT MONTREAL TRIES ON SOMETHING NEW WITH *FOR HONOR*.

Preview
SUDDEN STRIKE 4
PUBLISHER KALYPSO
GENRE STRATEGY
SYSTEM PS4, PC, Mac, SteamOS
AVAILABLE Q2 2017

Kalypso is back with more from the *Sudden Strike* series, which means we get to return to the battlefields of World War II in an updated and more realistic manner than before. *Sudden Strike 4* introduces new scenarios along with legendary commanders, each of which have their own unique abilities, and at the time of this writing it's blazing toward a spring 2017 launch window on PlayStation 4, PC, Mac, and SteamOS.

The meat of *Sudden Strike 4* consists of three World War II campaigns, allowing players to choose from the perspective of commanding German, Soviet, or British and American troops. Despite what the title may lead you to believe, success in *Sudden Strike 4* is largely dependent on patience. The slower and more methodically you play, the likelier you are to succeed in the 20 or so scenarios available in single player. That's not even accounting for all of the multiplayer action to come, all of which makes the solo sorties that much more of a necessity. Like many a good strategy game, a good session ends up playing out like a Chess match. If you're not thinking at least a handful of moves ahead, you're only going to end up in a sticky, potentially hopeless situation.

Units have been expanded for this one, with more than 100 authentic types available across the campaigns. Among the highlights are the German Panzerkampfwagen VI Tiger, the British Hawker Typhoon fighter plane, and the Russian T-34 tank. As for the aforementioned legendary commanders, *Sudden Strike 4* features nine in total, including the likes of George Patton and Bernard Montgomery. Your approach in combat will largely depend on which commander you choose from the outset, and you'll be facing off against other commanders if you choose to dig into the multiplayer.

One of the most satisfying yet challenging aspects of this type of strategy game is its lack of reliance on base building. Since you can't develop a set of convenient bases to continue to churn out healthy units, you have to work hard to effectively utilize what you start out with. From the tanks to the troops themselves, every piece of the puzzle has an important role to play, and you can't rely on using them like cannon fodder for the mere purpose of making it through to the next objective. Other than the occasional scripted reinforcement, you're on your own.

While we haven't had a chance to check out the final version of the game, so far there's a welcome sense of strategic puzzle-solving in *Sudden Strike 4*. It should be fun to see what the competitive community does with the game's commanders and the leadership bonuses that throw a welcome wrinkle into a familiar stew of World War II strategy.

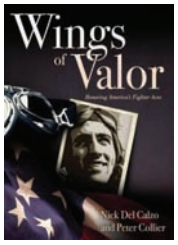
Review
FOR HONOR
PUBLISHER UBISOFT
GENRE ACTION/FIGHTING
SYSTEM Xbox One, PS4, PC
AVAILABLE NOW

When you first get your hands on Ubisoft Montreal's *For Honor*, you might not know quite what to make of it. Other than the fact that it's an action game that pits Vikings, Knights, and Samurai against one another, of course. It isn't until you get your hands on

made a secret of their plans nor pretend their goals were anything other than the benefit of Rome. Thus they built their empire into the most powerful in the world for the time.

War was so central to Roman lives that a book about their military history is very nearly a work on their civilization itself. The author brings that concept to vivid life through attention to even the smallest details and a flowing prose that keeps the work from bogging down. Each of the empire's major enemies is given attention; many chapters concentrate on a particular leader while still telling the larger story of his campaigns, victories, and defeats. This subject has been covered countless times in previous works, but this edition is truly a fresh perspective on the Roman war machine.

Wings of Valor: Honoring America's Fighter Aces (Nick Del Calzo and Peter Collier, Naval Institute Press, Annapolis, MD, 2016, 264 pp., photographs, bibliography, $50.00, Hardcover)



Fighter aces are a dying breed, but through no fault of their own. The changing nature of warfare has led to distant fights using long-range missiles and advanced technologies that almost completely eliminate the need for proficiency in dogfights. The men who have earned the sobriquet of ace are fast becoming scarce. Those yet living who attained this deadly achievement flew in World War II, Korea, and Vietnam; a few even flew in all three. Their stories are of daring, courage, and aggression.

The stories of 82 aces are included in this new book. Each chapter details their origins, entry into service, and wartime experiences. Their battles and the aircraft they flew are described in detail. In their own words, they talk of what they

it, however, that you realize that you're not dealing with a traditional multiplayer action game at all. *For Honor* is basically a fighting game, and you'll end up getting way more enjoyment out of it in the long run if you think of it that way from the start.

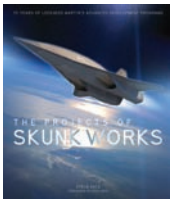
At a glance you might think billing it as a fighting game is a not-so-clever, or original, way of covering up for any perceived lack of skill on the battlefield. Hey, that's fine with me; *For Honor* is a challenging game that demands practice from those who want to keep up with the rest of the competition. While it mirrors a fighting game in this regard, it's also set up like a competitive shooter, so the end result is somewhat of a hybrid between the two, topped off with a compelling fantasy setting and some cool classes to play around with.

The multiplayer modes at launch included Dominion, Brawl, Duel, Skirmish, and Elimination, and your mileage may vary depending on which mode really clicks with you. Modes like Dominion focus on capturing and holding territory, while others are all about simply eliminating the other players, but it ultimately boils down to four-on-four, two-on-two, and one-on-one showdowns. Pitting teams of four against one another is a solid option for learning the ropes, especially if you mix in some AI bots to help stave off the problem of multiple players ganging up on any weak leftovers. Two-on-two battles are suitably intense, but how satisfyingly they play out occasionally depends on how chivalrous of a mood your opponents happen to be in at the time. Dueling one-on-one is fun, but it's not quite the quick and dirty *Bushido Blade* replacement some might have been hoping for.

While playing *For Honor* on the long term will require some sort of investment in skill development, beginners aren't necessarily jumping in with no hope. That's an issue I have with some of the shooters out there, but *For Honor* has a nice counterpoint in the form of the Revenge feature. Once a specific meter is filled, players can enter an enhanced state in which they have higher defense and deal more damage than normal. Since filling the meter relies on blocking, the Revenge state ends up rewarding discipline and patience rather than brute force. On the other hand, players who take an opponent out with a heavy strike may be granted access to an Execution, which involves a brutal kill and punishes the target in a couple of notably detrimental ways.

Single-player is there for anyone who wants to dig in solo, but it's far from a selling point. Though it has a few strong set pieces and an occasionally interesting villain, it's best thought of as ample training for the multiplayer modes. Overall there's good fun to be had with *For Honor,* and it could enjoy a decent lifespan as long as Ubisoft gives it some regular TLC. As of now, some of the updates to come have already been revealed, and they include the addition new classes like the Ninja and the Roman Empire-style Centurion. Hopefully, *For Honor* will continue to receive fresh features and new contenders for the foreseeable future. ☐

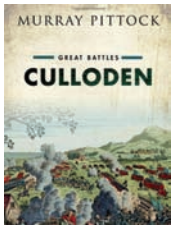
learned and felt while fighting America's war in the world's skies. The authors conducted extensive interviews and combined images of the aces as young men with how they appear now. The result is a fitting tribute to these capable men, their bravery, and their sacrifices.



The Projects of Skunkworks: 75 Years of Lockheed Martin's Advanced Development Programs (Steve Pace, Voyageur Press, Minneapolis, MN, 2016, 256 pp., photographs, appendices, bibliography, index, $40.00, Hardcover)

From World War II throughout the Cold War, the United States needed exceptional fighters, reconnaissance aircraft, and other warplanes. Lockheed Corporation was at the forefront of aviation technology. It designed and built cutting-edge aircraft in its advanced projects department, which became known as the Skunkworks. Beginning with the famous P-38 Lightning, Lockheed went on to design such classic combat planes as the P-80 Shooting Star and F-104 Starfighter. In the realm of reconnaissance, the Skunkworks succeeded admirably with the U-2 and SR-71 Blackbird.

This coffee table book, which covers 70 years of bleeding-edge aviation technology, is beautifully laid out with a combination of photographs, artwork, line drawings, and technical tables. The text is informative and detailed, and the artwork is visually spectacular. The volume is encyclopedic in nature and furnishes exhaustive coverage of the designs. Some of the designs included in the book are relatively unknown even today.



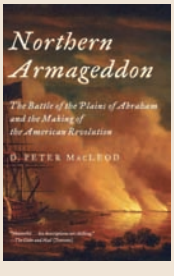
Great Battles: Culloden (Murray Pittock, Oxford University Press, Oxford, UK, 2016, 256 pp., maps, illustrations, notes, bibliography, index, $39.95, Hardcover)

Culloden is one of the most significant battles in British history, but it lasted less than an hour and involved only 15,000 troops on both sides. The forces of the king of England met an opposing force of Jacobites supporting the claim of Prince Charles Edward Stuart. The Jacobites charged the English line but were repulsed and routed. The clash was the last battle on British soil that contained regular troops on both sides, as well as the last legitimate challenge to rule of the United Kingdom. Following the victory, Great Britain went on to establish a global empire that lasted until the 20th century.

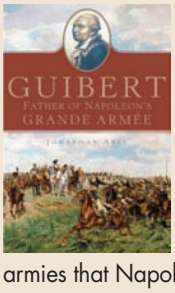
This new addition to Oxford's Great Battles Series covers not only the battle itself, but also the factors that led up to it and its influence on later events. It is a concise yet very complete retelling of the famous engagement. The book is wonderfully illustrated with a number of contemporary images and modern photographs of the terrain. The author is an expert on the Jaco-

SHORT BURSTS

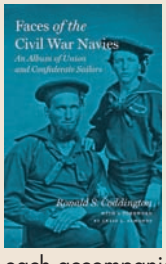
Courageous Women of the Civil War: Soldiers, Spies, Medics and More (M.R. Cordell, Chicago Review Press, 2016, $19.99, Hardcover) A number of women served in various roles during the conflict. The book contains the stories of 16 brave women.



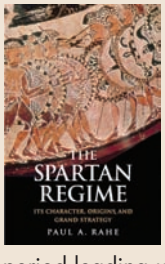
Northern Armageddon: The Battle of the Plains of Abraham and the Making of the American Revolution (D. Peter MacLeod, Knopf Publishing, 2016, $35.00, hardcover) This battle was pivotal in the French and Indian War and the creation of Canada. Its results changed North America forever.



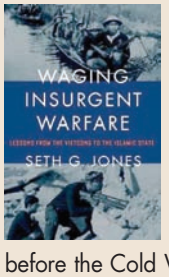
Guibert: Father of Napoleon's Grand Armee (Jonathan Abel, University of Oklahoma Press, 2016, $34.95, Hardcover) Guibert was one of the foremost theoreticians of his day. He laid the foundation for the armies that Napoleon would later lead.



Faces of the Civil War Navies: An Album of Union and Confederate Sailors (Ronald S. Coddington, John Hopkins University Press, 2016, $32.95, Hardcover) This collection of photos shows sailors of both sides, each accompanied by that individual's story.

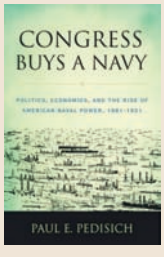


The Spartan Regime: Its Character, Origins, and Grand Strategy (Paul A. Rahe, Yale University Press, 2016, $38.00, Hardcover) This work looks at Sparta through the lens of the ancient Greeks. It covers the period leading up to the Persian invasion.

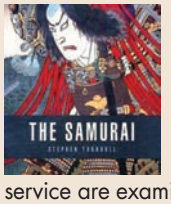


Waging Insurgent Warfare: Lessons from the Vietcong to the Islamic State (Seth G. Jones, Oxford University Press, 2016, $29.95, Hardcover) Insurgencies have been among the most common forms of warfare since before the Cold War ended. This book examines how they begin, how they fight, and how to defeat them.

Congress Buys a Navy: Politics, Economics, and the Rise of American Naval Power, 1881-1921 (Paul E. Pedisich, Naval Institute Press, 2016,



$39.95, Hardcover) In four decades, the U.S. Navy went from a decrepit force to a world-spanning fleet. The story of its resurrection is told in detail.

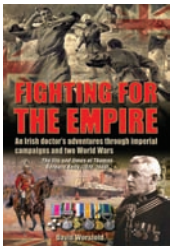


The Samurai (Stephen Turnbull, Osprey Publishing, 2016, $15.00, Hardcover) Japan's sword-wielding warriors are famous for their discipline, skill, and bravery. Their history, weapons, and service are examined in detail.

Images of War: China and Japan at War 1937-1945 (Philip Jowett, Pen and Sword Publishing, $24.95, Softcover) This photo book contains many pictures of the long struggle between these two nations. Included are detailed captions and chapter introductions.

Maps of War: Mapping Conflict through the Centuries (Jeremy Black, Conway Publishing, 2016, $50.00, Hardcover) Maps have been vital to warfare for centuries. This volume reveals how they have been used for planning and recording history's most important conflicts.

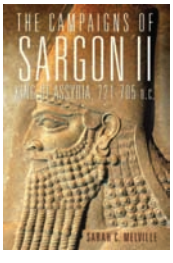
bites and his knowledge and attention to detail show through in this edition.



Fighting for the Empire: An Irish Doctor's Adventures Through Imperial Campaigns and Two World Wars (David Worsfold, Sabrestorm Publishing, Kent UK, 2016, 240 pp., photographs, bibliography, index, $32.95, Hardcover)

Thomas Bernard Kelly was a doctor from Galway, Ireland, who served the British Empire for almost 50 years. He joined the Medical Service in 1896 and initially was posted to the Northwest Frontier. During that time, he became one of the first Westerners to enter the sacred Tibetan city of Lhasa. In World War I, he served in the Middle East and participated in the siege of Ottoman-held Kut Al Amara in Mesopotamia. Immediately afterward, he served in the Third Afghan War in 1919. Military service continued to beckon to him, and in World War II the 69-year-old volunteered to serve with the Royal Navy. When the service turned him away, he became a ship's doctor on a merchant vessel.

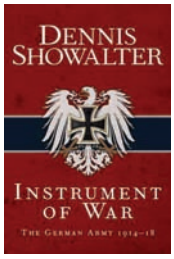
This biography is a detailed look at a normal man who led an unusual life. The book contains many of his personal photographs and images of places he was stationed over the years. The chapters are organized around the exotic locales where he served, such as snow-covered Himalayan Mountains and the scorching deserts of Mesopotamia. The result is a fascinating look at one man's travels through the last decades of the British Empire.



The Campaigns of Sargon II King of Assyria, 721-705 B.C. (Sarah C. Melville, University of Oklahoma Press, Norman, 2016, 300 pp., illustrations, appendices, notes, bibliography, index, $32.95, Hardcover)

Sargon II, the King of Assyria, wanted to vanquish the King Rusa of Urartu, so he invaded Urartu in 714 BC. Showing no concern for protecting his flanks or rear, or for Rusa's elite Urartian cavalry and chariots, Sargon led his troops in a frontal charge at the Battle of Lake Urmia in 714 BC. The charge routed the Urartians. Rusa fled in a chariot, but the Assyrians fired arrows, killing his horses. Rusa had no other option but to mount a mare and ride away in disgrace. Rusa returned to Tushpa, his capital city, and prepared to defend it against further advances by Sargon and his army, which proceeded to plunder the surrounding area.

This work is Volume 55 in the publisher's Campaigns and Commanders Series. It offers a detailed look at the life of Sargon II and his powerful army. The author draws on extensive resources, including Sargon's letters, archival records, and even cuneiform inscriptions and monuments. This book puts Sargon's life in context by discussing at length the Near Eastern world within in which he lived.

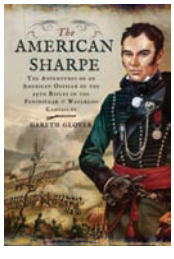


Instrument of War: The German Army 1914-18 (Dennis Showalter, Osprey Publishing, Oxford, UK, 2016, 328 pp., photographs, notes, bibliography, index, $30.00, Hardcover)

Many military historians regard the German Army of World War I as the finest of its time. It was a conscript force with deep reserves, solid training, and sound leadership. In the run up to World War I, the Germans developed a strategic plan designed to achieve a quick, decisive victory over France, Russia, and any Allied nation that stood with them.

Despite these intentions, Germany lost the war. Warfare was changing dramatically, and the Germans failed to keep pace with those changes. Moreover, the Germans failed to make the most of their success. In the end, they were beaten on the battlefield.

Renowned military historian Showalter has done an exemplary job with this topic. He covers in great detail the major campaigns on both European fronts in World War I, as well as Africa and the Middle East. His prose is crisp, his research is impeccable, and his attention to detail is impressive. This book stands out as a complete, one-volume history of the German Army during the Great War.



The American Sharpe: The Adventures of an American Officer of the 95th Rifles in the Peninsular and Waterloo Campaigns (Gareth Glover, Frontline Books, Yorkshire UK, 2016, 260 pp., photographs, notes, index, $39.95, Hardcover)

Born in Charleston, South Carolina, in 1792, James Penman Gairdner was part of a plantation-owning family. In 1804 he was sent to England, where he lived with an aunt who cared for him while he attended school at Harrow until 1809. Afterward, rather than return to America and take up the life of a merchant or farmer, he obtained a second lieutenant's commission without purchase in the famous 95th Rifles, an elite unit of the British Army. Two years later he was promoted to first lieutenant, his first and last advancement. In January 1812 he arrived at Cuidad Rodrigo and just had time to join in its capture. He was wounded at the siege of Badajoz, fought in several more battles, and was wounded again before seeing action at the last battle of the war, Toulouse in 1814. His father feared he might be sent to fight against America in the ongoing War of 1812, but instead he fought at Waterloo, receiving yet another wound and spending three years on occupation duty. Only then did he return home to a peaceful life.

This chronicle of an American who fought for Britain gives a unique perspective on the Napoleonic Wars. It contains the author's historical research mixed with Gairdner's own words in the form of his diaries and writings and gives the reader a look at the conflict through the eyes of a junior officer.

The Swamp Fox: How Francis Marion Saved the American Revolution (John Oller, Da Capo Press, Boston, MA, 2016, 368 pp., maps, illustrations, notes, bibliography, index, $26.99, Hardcover)

Francis Marion was a hero of the Southern Theater of the American Revolution. He led a small band of guerrilla fighters in South Carolina against the better supplied regulars of the occupying British Army. Though badly outnumbered, he had repeated successes against his more numerous opponents through classic asymmetrical tactics—ambushes, raids, and hit and run attacks. Along the way Marion fought or worked with many of the most famous persons or the war, such as Banastre Tarleton, Lord Cornwallis, Thomas Sumter, and Light Horse Harry Lee. Many celebrated him as the "Washington of the South," crediting him with liberating South Carolina during the critical last phase of the Revolutionary War. He was a patriot in the truest sense of the word and his legacy has survived to the present day in books, television, and film.

This is the first biography of Francis Marion to be published in 40 years; it benefits from new research and seeks to show the reader the true man, cutting away all the myths and embellishments that have grown around him over the intervening centuries. It places Marion's efforts within the greater context of the war and shows how they contributed to victory, giving the reader an understanding of why he deserves the appellation of hero in American history. □

intelligence

Continued from page 23

bridge as another demolition team, led by Lieutenant Mark Woodcock, blew up the bridge. But Woodcock's team, which was on ML-262, had not been dropped off in the right place because the captain was blinded by the searchlights and the launch had come under a blizzard of fire from the Germans.

Behind Roy's team, Lieutenant Stuart Chant, who already had been wounded in the right arm and left leg, led his demolition team toward the dock's pumping station that Roderick had just occupied. Their task, which was to destroy the pumping house and the machinery inside, was perhaps the most important of the demolition objectives. Inside the pump house was the machinery that emptied the dry dock so that repair could go forward on the ship inside it. A successful attack on the pump house could knock the dry dock out of commission for at least a year if not longer.

Chant's group put a small magnetic charge known as a clam on the locked doors. When the explosive blew open the doors, they plunged into the bowels of the pump house, moving toward the machinery 40 feet below. One of Chant's men, who was wounded and could not walk, was left to guard the door. Sergeant A.H. Dockerill carried both the wounded man's 60-pound pack of explosives and his own down the long steel stairs.

Chant and his men set 40 pounds of plastic explosives on each pump. They had practiced this task blindfolded during training, and therefore the darkness they encountered at the bottom of the pump house posed no challenge to them. Once the charges were set, Chant ordered all his men upstairs except Dockerill, who remained with Chant in case his wounds prevented him from igniting the charges. The explosives blasted the structure into concrete rubble, sending the pump motors into the crater below.

Chant and his men then rushed toward the bridge that led to the Old Mole but found the bridge swept by German fire. He and his men then ran under the bridge and swung hand over hand along the girders to the other side.

While the commandos were going about their destructive work, the waters along the jetty were full of mayhem as the crews of the motor launches tried to carry out their respective missions while under intense fire from a multitude of German guns. The Germans destroyed multiple launches, and there was great loss of life among the small boat crews. At one point a German trawler began picking up wounded British sailors floating in the water. They were forced to lie on the deck and guarded with rifles. As the operation wound down, Commander Beattie was taken prisoner.

By 2:30 AM, a number of the commandos had assembled for evacuation, but the majority of the motor launches had been destroyed. The German fire was so intense that no small boats remained in the area to evacuate the commandos. Newman told the men that they would have to split up and try to get back to England on their own. He suggested they try to link up with French Underground groups. "Well chaps, we've missed the boat," he said. "We will just have to walk home." The survivors then fought their way into the town. Most of the brave commandos who participated in the raid were slain or captured. Only five made it back to England.

The demolition experts had set the explosives in the *Campbeltown* to detonate at 4:30 AM on March 28. But because of what was believed afterward to be a malfunction in the detonators, the massive explosive charge detonated instead at 12 PM that day. The explosion inflicted enough damage to the dry dock that it remained unusable for the duration of the war. As for the *Tirpitz,* it never left the protection of the Norwegian fjords and never entered the Atlantic Ocean. The Royal Air Force attacked it repeatedly with bombers, finally destroying it on November 12, 1944.

Approximately 360 Germans were killed in the massive St. Nazaire blast. Not unexpectedly, British casualties were heavy. Of the 611 men who participated in the raid, 168 were killed and 200 captured by the Germans. But they did a stunning amount of damage. Only five of the small boats were able to rendezvous with the two escort destroyers for the return voyage.

The British were proud of the damage wrought during what came to be regarded as the "greatest raid of all." The British government awarded 89 military decorations to participants of the raid. The Victoria Cross, Britain's highest award for valor, was given to Beattie, Newman, and Ryder, each of whom survived the raid, and awarded posthumously to Sergeant Thomas Durrant, who manned a twin machine gun on Motor Launch 306, and Able Seaman William Savage, who manned the forward two-pounder gun on Motor Gun Boat 314.

The results of the raid are best measured in relation to its effect on the overall war effort. The raid on St. Nazaire occurred at a time when the Third Reich was strong and Great Britain needed a successful operation to boost morale for the long fight that lay ahead. The raid achieved that goal and much more. □

kennesaw

Continued from page 55

same time as the Union attacks to the north ground to a halt, Cox's brigades were entrenching on the ridge, which was the last obstacle between Olley's Creek and Nickajack Creek.

Upon hearing this good news, Sherman told Schofield to instruct Cox to remain on the defensive, but if attacked to hold the valuable ground he had gained. Skirmishing continued throughout the rest of the day with the Rebel cavalry fighting dismounted behind hastily constructed earthworks.

Brigadier General Lawrence Ross, who commanded one of the three Rebel cavalry brigades, probed the Yankees with skirmishers to pinpoint Cox's position and test its strength. The gains achieved by Cox and his men on June 27 became the fulcrum for Sherman's next turning movement. Realizing he had been outflanked, Johnston abandoned his position at Kennesaw Mountain and on July 2 fell back to a prepared position at Smyrna. He then withdrew to another prepared position on the north side of the Chattahoochee River that covered the bridges and ferries leading to Atlanta.

Despite the double repulse, Sherman was not done for the day. He wanted Thomas to renew his attack. "My officers report the enemy's works exceedingly strong, in fact so strong that they cannot be carried by assault, except by immense sacrifice, even if they can be carried at all," Thomas responded. "We have already lost heavily today without gaining any material advantage. One or two more such assaults would use up this army."

At a cost of about 700 Confederate casualties to 3,000 Union casualties, Johnston had won a tactical victory, but he had not altered the strategic situation in any way. For his part, Sherman failed to achieve his primary tactical objective, which was to punch through the Confederate center. Nevertheless, Schofield's success against the Confederate left afforded Sherman an advantage that he exploited five days later.

Johnston's method of fighting was not palatable to Confederate President Jefferson Davis, and he removed Johnston from command on July 17, 1864. Heavy attrition in the Confederate Army of Tennessee made it practically impossible for any commander, no matter how seasoned or how much of a fighter he was, to defeat the Union juggernaut fighting its way toward Atlanta. More misery awaited the Army of Tennessee both in the trenches around Atlanta and on the forlorn march it would make into Tennessee as a last gasp under General John Bell Hood in the autumn of 1864. □

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Actual size:
L 5.91" x W 2.68" x H 7.2"

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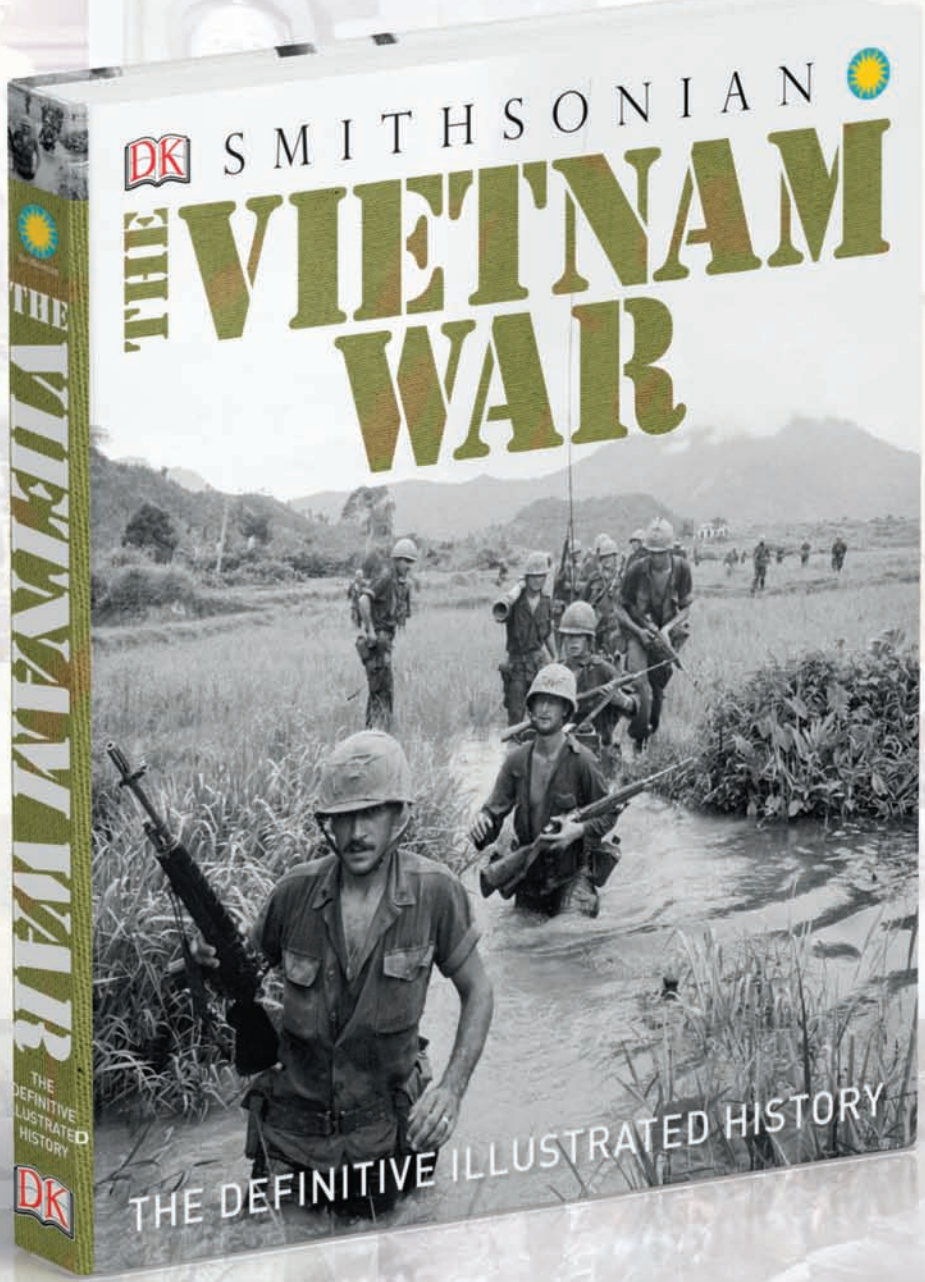

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