

A CENTURY OF CONFLICT

WAR, 1914–2014

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and expectations

War arose from the competition between the major European powers, which were aligned in competing leagues, particularly those of France-Russia and Germany-Austria, and were arming and preparing their forces for war. Moreover, a series of diplomatic crises had greatly raised tension from the 1900s, notably over the Balkans (Southeast Europe), because the Turkish Empire there was (mostly) partitioned between neighboring powers in 1912-1913.

The war itself began because of an assassination in Sarajevo in Bosnia on June 28, 1914. Bosnia was a province in the Austro-Hungarian Empire (or Austria). The visiting Archduke Franz Ferdinand, the nephew and heir of the elderly emperor, Franz Joseph, was assassinated by terrorists linked to a Serbian nationalist organization that was part of the governmental structure. This assassination led Austria to decide on a show of force against Serbia, the ambitions of which challenged Austria's position in the Balkans. War was seen by military decision makers in Austria as the best way to stabilize the empire in the face of serious nationalist challenges from within and without, notably by the Serbs.

Alliance systems contributed directly to war, rather than helping deter its onset. German support for its ally, Austria, provided crucial encouragement to the latter. The Serb response to an Austrian ultimatum was deemed inadequate, and on July 28, the Austrians declared war, ending the possibility of mediation by the other powers that had been a prospect the previous day. Moreover, military action was to start with the Austrian bombardment of Belgrade, Serbia's capital. In reply to the Austrian declaration, Serbia's ally, Russia, declared general mobilization on July 30, a move that made a major war more likely. With its decision makers confident that war was necessary and could lead to a quick victory, Germany demanded the cancelation of this mobilization, a step that would have identified Russia as an inadequate ally, and thus destroyed the Franco-Russian alliance. When this demand was refused, war on Russia was declared on August 1. Russia's ally, France (elements of whose government had encouraged Russia to act), then became the key element for the Germans. They issued an ultimatum that France must declare neutrality and provide guarantees for it, and French refusal led the Germans to declare war on August 3. Thus, the Germans, who had rejected British and Russian suggestions of mediation, declared war on both Russia and France before either had begun military action against them.

THE INITIAL CAMPAIGN ON THE WESTERN FRONT

Germany now faced war on both fronts—with France and Russia—as it had not done when it defeated Austria in 1866 and France in 1870–1871. To win, the Germans thought it necessary to focus their efforts on defeating their opponents in sequence. Although Germany shared borders with both France and Russia, France was the only one that apparently could be knocked out rapidly: Paris was far closer to attacking German forces than Moscow. To avoid the fortifications and hilly terrain in eastern France, however, the Germans attacked France via flatter Belgium. Belgian neutrality was guaranteed by the major powers, including Britain. However, on August 4, Belgium was invaded, and the German chancellor declared, "Necessity knows no law."

Britain already felt challenged by Germany's aggressive expansionism and naval buildup and concerned about the balance of power. The invasion of Belgium united most British political opinion behind the war. National honor was an important factor in the political culture and international realities of British politics. The British government had also entered into naval arrangements with France. On August 4, when an ultimatum demanding the German evacuation of Belgium received no answer, Britain entered the war.

The German failure to appreciate the consequences of British entry reflected the wider limitations of German strategic thought. Because the Germans sought, planned in great detail for, and anticipated a swift and decisive victory to avoid the military, political, economic, and social complexities of a large-scale and lengthy war between peoples, the political dimension was not significant for their planners who, in any case, underestimated their opponents' power and resolve.

The focus in 1914 was on winning the initial campaign and, in doing so, by attacking. Heavy casualties were anticipated, but all the major powers, bar Britain and the United States, already had conscription, and armies were large. Moreover, although enthusiasm for war was far from universal and many were shocked by the turn of events, there was a strong sense of patriotism. There was considerable public support for war. Reservists mobilized and volunteers flocked to serve. Moreover, support for war in Britain increased once news spread about German atrocities, notably against civilians in Belgium. Newspapers and posters spread reports and images of these atrocities. Such reports were to be a significant strand in war reporting of the following century.

Popular consent for the war was strongly grounded among all the combatants. The conviction that the war would be short contributed to its popularity, but so did the strength of nationalism in this period. In contrast, the peace movement collapsed in August 1914 and the Socialist parties preferred the nationalist course to the alternative of an international Socialism opposed to war.

The plans of all the armies failed in 1914, bar those of the Serbs, who defended themselves successfully against Austrian attack. The Germans launched the key offensive, advancing through Belgium into northern France. The Belgian fortresses

around Liège were blown apart by massive German howitzers: the 420-mm guns fired 2,052 16-pound high-explosive shells able to penetrate 10 feet of concrete. The Germans benefited because initially the French focused not on Belgium, but on advancing farther south against the German-ruled section of Lorraine, annexed by Germany in 1871 after the previous war between France and Germany. Launched in the face of German artillery, the French offensive was unsuccessful and very costly.

Eventually, French and British forces were fed in to resist the German attack via Belgium. The Germans, meanwhile, were slowed down by the need to transport food and ammunition for the formidable number of their advancing forces. Aside from serious faults in German planning and execution, there were also problems with equipment and discipline. These qualify the usual historiographical picture of total German competence, a point also valid for World War II.

German problems gave the French a better opportunity to regroup. Indeed, German war making, with its emphasis on surprise, speed, and overwhelming and dynamic force at the chosen point of contact, was not effective against a French defense that had depth and that retained the capacity to use reserves by redeploying troops by rail during the course of operations: units were moved from the Lorraine front to resist the Germans who had advanced via Belgium. The same issues were to face the Germans when they invaded the Soviet Union in 1941, again achieving initial success but failing to knock out their opponent.

These problems were serious in 1914, as was the mishandled German advance when it neared Paris itself. A gap between the two armies on the advancing German right developed and the French took the opportunity to counterattack, advancing into the gap on September 8 in the Battle of the Marne. The Germans were not defeated, but suffered a failure of nerve and fell back in what became a key failure of impetus.

The Germans had lost their opportunity to win. This strategic defeat also reflected a more general falling apart of prewar plans, a product both of their deficiencies and of mistakes in implementations. The limitations that invading powers faced in maneuver warfare were serious, especially in sustaining mass and maintaining the tempo of attack, and these limitations helped to cause the failure of the German offensive. In contrast, whatever the German deficiencies, the maintenance of the French defense in 1914 was a fundamental Allied strategic achievement. It ensured that Germany would have to fight land wars on two fronts, unlike in 1870 and 1940, when France was defeated. In 1918, the Germans only had to fight on one front and the Allies were put under great pressure by German attack.

After the Battle of the Marne, both sides unsuccessfully sought to outflank the other to the northwest to avoid the high casualties of frontal attacks and to gain the advantage of the open flank and of maneuvering into the opponent's rear. The German attempt to break through to the English Channel, however, was thwarted by the British in the First Battle of Ypres, in which more than 140,000 men were killed in two weeks. The heavy casualties reflected the peril of the modern battlefield, a peril that owed much to enhancements in weaponry since Germany and

France had last fought, in 1870-1871. In particular, the potency of artillery was increased by better sights, new propellants and fuses, steel-coated projectiles, high-explosive fillings, and new recoil/recuperator dual systems whereby one part allowed the barrel to recoil without moving the carriage and the other part allowed the barrel to return to its original position on the carriage. This hydro-pneumatic and hydromechanical system was essential to quick-firing guns.

The enhanced accuracy of artillery helped make the open battleground dangerous to an unprecedented degree, affecting tactics and uniforms. As a result of this danger, soldiers dug in. Field fortifications had long been a feature on battlefields and entrenchment (digging trenches) was scarcely new, but the threat from artillery very much ensured that entrenchments now played the major role in field fortifications. Trenches were designed to protect troops.

By November 1914, there was a stalemate on what had become a fixed western front, with the front line stretching from the Swiss frontier to the North Sea. The maneuver stage of the war in the West, with its emphasis on a strategy of envelopment and on a battle of annihilation to secure total victory, was now over. Trenches became the environment of military life and the center of conflict. Dug into the soil and difficult to keep dry or make warm, trenches represented the extreme discomfort of military service. Soldiers focused on their boots and the means to keep their feet warm, and they also had to deal with rats and lice. Because trench lines were fixed for long periods, the memory of those who had



German artillery shells abandoned after the Battle of the Marne.

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THE NATURE OF TRENCH WARFARE

Generals were to try repeatedly to recreate the flexibility of the opening stage of the war, indeed to seek to reopen a war of movement by breaking through their opponents' front line, but this goal was to prove elusive year after year. Indeed, it is unclear how far maneuver warfare, as planned prior to the war, was in fact a real possibility for the large and well-equipped armies of major European powers fighting each other in a confined space in this period or whether it was an illusion, so that a quick victory from outmaneuvering the opponent was unlikely. Whether or not trench warfare could have been avoided by better planning, generalship, and tactics, it was established by the end of 1914, creating tactical and operational problems that were to be savage in their consequences in terms of casualties.

The basic strategic fact was that Germany, in the opening campaign, had seized most of Belgium and part of France, which obliged Britain and France to mount offensives against the German trench lines to regain the lost territory. Moreover, gaining the initiative by attacking was seen as necessary for victory.

Successive offensives, however, revealed the defensive strength of trench systems. The concentration of large forces in a relatively small area ensured that any defender was able to call on plenty of reserve troops to stem an advance that was necessarily slow when made by infantry against ground badly cut up by shell fire. The strength of trench positions also owed much to the weaponry available for their protection and that they could protect, especially quick-firing artillery and machine guns, with their impressive and unprecedented range and rapidity of fire. In addition, barbed wire hindered attackers.

Furthermore, even if such trench positions were breached, it was difficult for an attacker to make substantial gains. Local superiority in numbers could not be translated into decisive success. Although it was possible to break through at least some of the opponents' trench lines, as attackers repeatedly demonstrated, albeit at heavy costs, it was hard to exploit such successes, in part because the attacking army had exhausted itself in the first stage.

Moreover, once troops had advanced, it was difficult even to recognize, let alone reinforce and exploit, success. Until wireless technology improved in late 1917, communications remained limited, and this issue stultified the control and direction of forward operations. This problem was part of a more widespread limitation in command structures, specifically poor communication and often cohesion between front-line troops and more senior command levels. Furthermore, the devastating impact of modern shell fire ripped up the terrain to such an extent that it was difficult to bring up supporting artillery and supplies behind any advance, which meant that the impetus of the critical attack could not be sustained.

In addition to local reserves, the defenders could also use railways to bring in reinforcements rapidly in the event of a threatened breakthrough. Thus, defenders could move troops more rapidly by rail to the battlefields than the attackers could advance on foot through the battlefield.

Artillery was the real killer, followed by machine guns. Estimates suggest that high explosive fired by artillery and mortars caused up to 60 percent of all casualties. The relative stability of the trench systems made it worthwhile deploying heavy artillery to bombard them because the guns could be brought up and supplied before the situation changed, as it did in maneuver warfare. It was necessary to provide artillery support to batter an enemy's defensive systems and to subdue opposing artillery.

In 1915, British and French attacks on the western front suffered from a lack of understanding of trench warfare. There was a shortage of heavy artillery and shells arising from the expectation of a short war and the related delays in establishing the necessary industrial and military procurement policies for a sustained war. The earlier reliance on field guns, rather than on heavy guns, proved inappropriate for trench warfare. Attacks, for example, those by the British at Loos, failed, with heavy casualties.

In 1916, in contrast, the combatants benefited to a degree from the gearing up of their economies for war, notably in increasing shell production, and they launched more sustained offensives. The Germans attacked at Verdun, followed by the British (and, to a lesser extent, the French) at the Somme. For both, the



British machine gunners in a trench.

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alternative to the pursuit of the strategic breakthrough appeared to be a policy of attrition, which focused primarily on killing large numbers of opponents. The numbers killed were formidable. The Verdun offensive, launched on February 21 and designed to bleed the French army dry in defense of a vulnerable position, had led to the death of 714,000 French and German troops by the end of the year, but the French did not break. Indeed, they recaptured most of the territory near Verdun lost earlier in the year.

In part to take the pressure off the French at Verdun, the British took the major role in the Somme offensive. On July 1, 1916, when the British attacked on the Somme with 120,000 troops, they suffered that day alone 57,470 dead or wounded, many from machine gun fire. In 142 days, the British, who lacked sufficient heavy artillery support, advanced to a maximum depth of about six miles. More generally, in 1916, as in 1915, the deployment by the British of a large, recently raised volunteer army gravely compromised the professionalism that the smaller prewar British army had displayed. However, the Somme offensive also saw a marked improvement in British fighting methods and effectiveness during the course of the campaign; and German casualties, although less than British casualties, were still heavy. As with the major naval battle at Jutland that year, British deficiencies and casualties did not prevent both German losses and a sense on the part of German commanders that they would not prevail in the face of Allied determination and strength.

The year 1917 was another year of failure, with the British and French unable to break into the full depth of the German defenses, to consolidate, and to press home any advantage that arose so that break in could be converted to breakthrough. The French Champagne offensive proved particularly unsuccessful and, the heavy casualties led some of the French units to mutiny. This failure put the onus to act on the British.

However, in the Third Battle of Ypres, generally called Passchendaele after a ridge that became a key target, mud became a major problem for the attacking British and Dominion troops. The waterlogged terrain and heavy mud both proved ghastly living and fighting conditions and accentuated the frequent problem on the western front in which tactics swallowed operations. Unduly heavy rainfall ensured that the artillery lacked firm ground from which to fire and on which to move. A total of 70,000 British troops died in that offensive without any breakthrough. All local gains that were made were retaken by the Germans in the Lys offensive of April 1918. This was one of the German spring offensives on the western front that year in which the Germans inflicted serious losses.

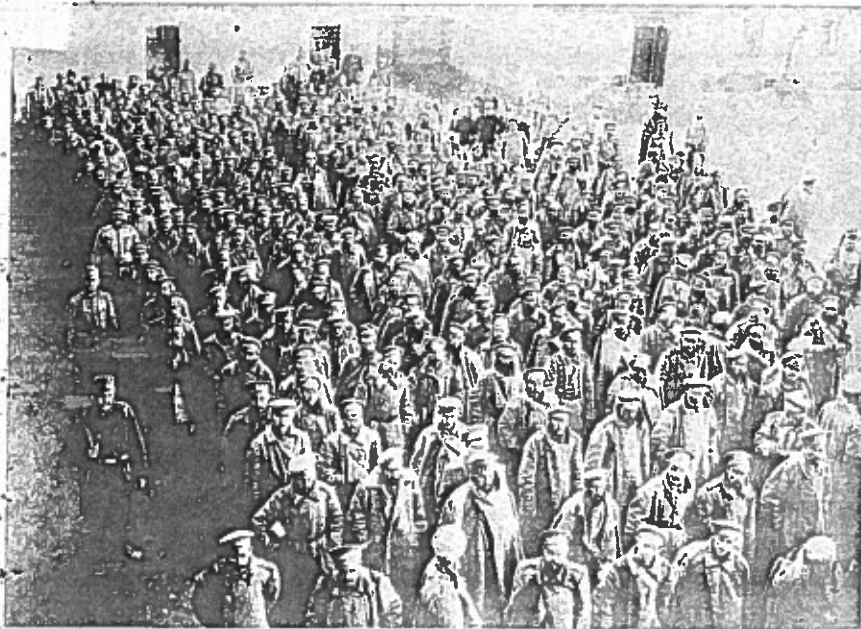
THE EASTERN FRONTS

Although the fighting on the western front dominates attention and has molded the subsequent image and understanding of the war, there was more flexible campaigning on a series of fronts in Eastern Europe. Moreover, this campaigning delivered military results that were to be of great political consequence. The

offensives launched there in 1914 failed, like those in Western Europe. Russian armies invaded East Prussia, only to be heavily defeated by the Germans at Tannenberg and the Masurian Lakes. The lack of coordination between the invading armies permitted the smaller German forces to defeat the Russian armies separately. The Germans had the advantages of interior lines of communication, but also benefited from their ability to adapt more rapidly to opportunities. The Russians had more success that year in invading the Austrian possessions in southern Poland, whereas the Austrians failed to defeat the Serbs.

In 1915, the Russians were driven out of Poland by the Germans, which encouraged Bulgaria to join the German alliance system. The subsequent overrunning of Serbia by Austrian, German, and Bulgarian forces in October 1915 demonstrated the ability of contemporary armies to achieve decisive victories in the right circumstances. In this campaign, large forces were ably deployed and coordinated over difficult terrain.

In 1916, the Russians under General Brusilov attacked the Austrians in southern Poland, benefiting from the lower density of troops there compared to that on the shorter western front. Lower force-to-space ratios on the eastern front ensured that the defense was weaker, both at the front and in terms of reserves, but it was still possible, if troops could be massed, to mount offensives successfully. In a surprise attack, Brusilov made major gains, but the offensive was pushed on beyond where it should have stopped to consolidate the gains. The Germans and Austrians were able to seal the front and to mount a successful counteroffensive.



Russian prisoners guarded by Austrian forces, Przemysl Fortress (present-day Poland).

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Brusilov's initial success encouraged Romania, which had territorial ambitions at the expense of Austria and Bulgaria, to enter the war on the side of the Allies in 1916. However, against Romania, as previously against Serbia, the forces of Austria, Germany, and Bulgaria displayed an impressive ability to deliver a verdict. Most of Romania was rapidly overrun, indicating the potential decisiveness of operations. As with the Americans later in their initial operations on the western front, the Romanians suffered from a lack of experience of conflict of the type of World War I. Their army also lacked the relevant weaponry, and its command style reflected the ethos of aristocratic society, rather than experienced professionalism. Nevertheless, the Romanians fought on in Moldavia, and the need to fight there weakened the Central Powers elsewhere, notably in 1917.

REVOLUTION IN RUSSIA

Russia's failure to protect its territory from invasion contributed directly to the savage socioeconomic crisis there. The organizational weakness of the Russian state was particularly clear in transport and food allocation. Food shortages became more serious in the context of a paranoia that drew on a lack of national unity and on related political and social tensions. Alongside popular discontent, there was significant disillusionment among the elite. Having taken direct charge, Tsar Nicholas II had proved an ineffective war leader. The army failed to act against demonstrators in Petrograd (Leningrad, St Petersburg) in March 1917, and Nicholas was pushed into abdicating.

A republican provisional government took power, but the war went on, although without success. Indeed, the eventual fall of the new government owed much to this failure. In September 1917, a German offensive captured Riga, a major city. The Germans successfully used storm troopers, infiltration tactics, and a heavy neutralization artillery bombardment. Two months later, a Bolshevik (Communist) coup in Petrograd led to the overthrow of the government with little resistance. The Bolshevik leader Lenin, who had been transported to Russia with German connivance, was opposed to the war. He negotiated a peace with Germany in March 1918, the Treaty of Brest Litovsk, a peace that gave Germany rule over much of western Russia. This success suggested that Germany might win the war. It would now only have to fight on one front and it would have access to Russian resources, especially to grain from Ukraine, thus potentially circumventing the Allied naval blockade.

ITALY

The Germans were to try a similar knockout blow against Italy in 1917. Ambitious for territorial gains from Austria, Italy had joined Britain and France in May 1915, mounting a series of costly offensives that failed to break through the Austrian lines. The Italian forces were poorly trained, equipped, supplied, and led, and they fell victim in 1915-1916 on the Isonzo front, the center of

operations, to Austrian defensive firepower. Successive Italian offensives led to the gain of little territory and no breakthrough. Troops that were reluctant to advance risked being shot.

In late 1917, the Austrians and Germans employed the tactics the Germans had used at Riga earlier that year when attacking the Italians at Caporetto. The emphasis was on surprise and speed, not attrition. Benefiting from the cover of fog, the Austrians and Germans moved rapidly, with machine guns and light artillery on lorries, avoiding Italian strongpoints as they advanced, and destroyed the coherence and communications of the Italian defense. Poor command contributed greatly to the Italian collapse, but this collapse also indicated the potential effectiveness of the offensive using the new tactical doctrine.

Although no supporting amphibious operation was launched by the Austrians from their possessions in modern Slovenia and Croatia across the Adriatic Sea, Italy was nearly knocked out of the war. Its forces were pushed back 80 miles and lost possibly as many as 700,000 men, as well as nearly 5,000 pieces of artillery. This military disaster was linked to a slower-moving political and social crisis in Italy, one that led to concern that it would collapse, rather as Russia had that year and as France was to do in 1940. A new government was formed, pacifism was repressed, and a new front line was shored up with major British and French contingents despite the opposition of western front generals to this transfer.

WAR WITH THE TURKS

Entering the war against the Allies in October 1914, Turkey greatly extended the geographic range of the Central Powers (the German alliance system). They gained a new front with Russia, in the Caucasus, as well as the possibility of land conflict with the British because the British and Turkish (Ottoman) empires had a common border on the Egypt-Palestine frontier, whereas Turkish rule of Iraq threatened the British position in the (Persian) Gulf. Thus, the strategic problems facing the Allies increased greatly. In particular, Russia no longer had a safe supply route from the Black Sea to the Mediterranean.

The Allies sought to address this in 1915 by attacking Constantinople (Istanbul), the center of Turkish power. To its proponents, notably Winston Churchill, the dynamic First Lord of the Admiralty, this scheme appeared to be a way to use British naval power and avoid too great a focus on the conflict on the western front. Indeed, there was a debate in Britain between the "Westerners," who argued that Germany had to be defeated in the main sphere of operations on the western front, and the "Easterners," who looked for an alternative that would make use of traditional strengths in naval power and amphibious attack, gain the initiative, and avoid the carnage on the western front. Churchill was eager in 1915 to avoid the bloody, indecisive campaign on the western front, but he was, nevertheless, committed to a "Germany First" strategy, rather than focusing on knocking out Germany's weaker allies. This priority is generally lost sight of because of Churchill's extensive efforts to justify the Dardanelles campaign after

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the war, which has created the mistaken impression that he was a dedicated Easterner throughout the conflict. Churchill's preference was for an amphibious assault against Germany in the North Sea or Baltic, and the attack on the Dardanelles was intended by him initially as a means to employ "surplus" naval forces in a secondary theater in hopes of winning a cheap and easy victory with little risk.

The plan first entailed forcing a passage through the Dardanelles. An Anglo-French naval attempt to force the passage began on February 19 and was stopped on March 18 by mines and shore batteries, with the loss of several battleships to mines. This failure was followed, on April 25, by the Gallipoli expedition, which was designed to gain control of the western shores of the Dardanelles by landing troops on the Gallipoli peninsula. This was the most important amphibious operation of the war and its failure offers an instructive contrast with the greater success of the amphibious expeditions mounted by both sides during World War II.

Flawed in both conception and execution, not least because of a lack of enough powered landing craft (a key contrast with World War II) as well as lack of a relevant planning and command structure, the Gallipoli expedition was badly hindered by an effective Turkish defense that took advantage of the strength of defensive firepower and of holding the higher ground. Both sides dug themselves in. The Gallipoli operation then became an instance of how, repeatedly during the war, strategic conception was not matched by tactical and operational success, which was partially a matter of the absence of marked capability gaps in effectiveness between the combatants. This absence was not the product of military failure, but rather that there was no failure creating such a gap.

Once troops had been landed and his political career was at stake, Churchill started to shift his attention to the eastern theater. The Gallipoli campaign, however, was finally abandoned that winter after very heavy Allied casualties, and Churchill's reputation was badly tarnished.

The Turks also proved a difficult foe elsewhere, notably when the British, to provide forward protection for the Gulf and India, tried to conquer Mesopotamia, modern Iraq. A lunge from Basra toward Baghdad was stopped in November 1915, and the British force, besieged at nearby Kut, had to surrender the following April. This was a humiliating blow, although not on the scale of the British surrender to the Japanese at Singapore in 1942.

As in most wars, both sides faced serious disappointments that reflected not only issues in implementation, but also strategic planning. Thus, alongside failure at Gallipoli, German hopes from the Turks also proved seriously overoptimistic. The Turks were expected to provide the leadership for pan-Islamic revolts, but most of the Muslims in the world did not respond to the declaration of *jihad* (holy war) by the Caliph, the Turkish sultan. There was no supporting rising in Egypt, and the Turkish attack on the Suez Canal was repelled in February 1915 by Indian units, supported by British and French warships. Moreover, the Turkish offensive in the Caucasus in the winter of 1914-1915 was defeated by the Russians.



Turkish soldiers commanded by German officers near the Dardanelles.

Nevertheless, the Turks were still useful to the Germans in that they engaged large Allied forces, rather like Germany's ally in 1940-1943, Italy. Whereas in World War I most of Germany's colonies had fallen rapidly and ceased to absorb large numbers of Allied troops, this was not true of the war with Turkey.

As with Italy in 1943, three years into their war, the Turks were also to suffer from advances by their opponents. In 1917, the British advanced into Palestine and in Iraq. Having checked British attacks on the Gaza front near the Mediterranean in an instance of trench warfare, the Turks were outfought and defeated when the British operated further east, creating an open front in Palestine in late 1917. Jerusalem was captured on December 9. In Iraq, a methodical, logistical campaign by larger British forces, articulated by improved communications, led to the fall of Baghdad in March 1917, the first time it had ever fallen to Western forces. These were welcome victories, but they did not hit the center of Turkish power, as Italy was repeatedly hit in 1943-1944. Moreover, the victories over the Turks in 1917 were outweighed by Germany's success in knocking out Russia that year.

THE NAVAL WAR

The world's leading naval power, Britain, was able to impose an increasingly effective blockade on Germany from the outset of the war, as well as to retain control of its home waters, maintain the flow of men and munitions to the British

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army in France, and protect trade links that permitted the mobilization of British resources. The blockade, which had many holes but became more comprehensive when the United States came into the war in 1917, was supported by a system of preemptive purchasing that was important to the international control of raw materials; it also greatly influenced neutral economies. In particular, cutting off trade with Germany lessened American economic and financial interest in its success and directed it instead to the Allies. The blockade of Germany affected the availability of food there, which had serious consequences for civilian health.

Britain's supply system was that of a country that could not feed itself: nearly two thirds of Britain's food was imported. Britain also had an imperial economy that relied on global trade and a military system that required troop movements within the vast empire, notably of troops from Australia, Canada, India, and New Zealand. All of this was challenged by German surface raiders, but they were largely hunted down in the opening months of the war. Moreover, Allied sea power supported successful operations against German colonies.

The Atlantic trading system on which the British economy rested was the prime target for the German navy by 1915, with economic warfare the key theme. Trade was important in mobilizing the capital and securing the *matériel* on which Allied war making depended. Neither Britain nor France had an industrial system to match that of Germany, and the Allies were dependent on the United States for machine tools, mass production plants, and much else, including the parts of shells. American industrial output was equivalent to that of the whole of Europe by 1914, and the British ability to keep Atlantic sea lanes open against the assault from German submarines ensured that America made a vital contribution to the Allied war effort before its formal entry into the war in 1917.

Used in particular by the Germans, submarines were a new type of an old challenge, the commerce raider, but their potential had been greatly underestimated by most prewar commentators, and this remained the case during the war. In Germany, there was a lack of commitment from within the navy, which preferred surface warships, and, crucially, a longstanding concentration of industrial resources on the army, a pattern that was to be repeated in World War II. As a result, although submarines swiftly affected the conduct of operations, the Germans did not have the numbers to match their aspirations. Moreover, although they moved while submerged, submarines were dependent on battery motors, that had to be recharged on the surface, where they were highly vulnerable to attack. In addition, submarines were slow, which lessened their chance of hitting a warship moving under full steam.

Submarines, however, benefited from the limited effectiveness of antisubmarine weaponry and from the lack of experience in antisubmarine tactics. The submarines could therefore be given a role in strategic planning by attacking merchantmen. The Germans demonstrated that far from being a source of protection for Britain, the sea, as in the past, could in fact be a barrier to safe resupply. In February 1915, the Germans increased the tempo and threat of their attack by beginning unrestricted submarine warfare, which entailed attacking all shipping,

Allied and neutral, and without warning, within the designated zone. When the British ship *Lusitania*, the largest liner on the transatlantic run, was sunk off Ireland on May 7, 1915, there were 128 Americans among those lost.

In response to the risk of American intervention, the Germans abandoned unrestricted submarine warfare. They were also unprepared for such a war because they lacked sufficient submarines, trained crew, or bases to mount an effective blockade of Britain. The Germans sunk 748,000 tons of British shipping in 1915, but Britain and its empire launched 1.3 million tons.

In 1916, the Germans instead hoped for victory in a fleet action. They were seeking to use their main fleet to wear down British naval strength in capital ships as a prelude to a fleet action. Their plan required falling on part of the British Grand Fleet with their entire High Seas Fleet to reduce Britain's crushing numerical superiority in heavy warships. Helped by their effective intelligence system, the British did not fall for this plan; however, although they had the larger fleet at the battle of Jutland of May 31 to June 1, the British suffered from problems with their cautious command style as well as their ships: their battle cruisers proved vulnerable. Nevertheless, although British battle losses in ships and manpower were heavier, the German fleet was badly damaged and its commanders were intimidated by the display of British naval power; the Germans thereafter focused at sea on submarines.

This emphasis altered the nature of the war at sea because, unlike surface fleet action, submarine warfare did not offer the prospect of a decisive victory in a climactic engagement. Instead, the submarine conflict ensured that war at sea became attritional. Combined with the British blockade of Germany, the submarine assault meant that the war was more clearly one between societies, with an attempt to break the resolve of people by challenging not only economic strength, but also social stability and indeed by cutting food movements and demographic health. This challenge necessarily directed attention to the ability of governments to safeguard the home front. Improving agricultural production became a key aspect of the war effort in Britain, as in Germany.

In 1917, the Germans planned a knockout blow against Britain by means of a resumption of unrestricted submarine warfare. Having failed to drive France from the war at Verdun in 1916 and having experienced the lengthy and damaging British attack in the Somme offensive, the Germans sought to force Britain from the war by resuming attempts to destroy its supply system. There was a parallel with the invasion of France via Belgium in 1914, in that the strong risk that a major power would enter the war as a result (Britain in 1914 and America in 1917) was disregarded by Germany on the grounds that success supposedly could be obtained as a result of the German attack. In 1917, however, unlike in 1914, the Germans had had plentiful warnings of the likely consequences of American anger as a result of their earlier use of unrestricted submarine warfare in 1915. There was also a failure of planning on the part of Germany because anticipated outcomes from the submarine assault did not arise, and the projected timetables of success miscarried.

Yet, this account mistakenly assumes a rationalist balance of risks and opportunities on the part of Germany. Such an approach ignores the extent to which the decision to turn to unrestricted submarine warfare reflected an ideology of total war and a powerful Anglophobia based on nationalist right-wing circles that saw British liberalism and capitalism as a threat to German culture. Again, although even more clearly, similar ideological factors were to play a key role with German policy in World War II.

AMERICA ENTERS THE WAR

The German resumption of unconditional submarine warfare on February 2, 1917, led the United States to declare war on April 6. Congress had approved the decision, although 6 senators and 50 congressmen opposed it. The German military leadership, increasingly politically influential, was unsympathetic to American moralizing. In addition, as in December 1941 when Germany declared war on the United States, there was also the view among German policy makers that America was already helping the British and French war effort as much as it could commercially. Moreover, there was a conviction that Britain could be driven out of the war rapidly by heavy sinkings of merchantmen: a belief that the submarines could achieve much and that this achievement would have an obvious consequence. It was claimed that the British would sue for peace on August 1, 1917. Furthermore, many German supporters of submarine warfare assumed that their force would be able seriously to impede the movement of American troops to Europe. More generally, there was a failure on the German part to appreciate American strength. Again, these factors were to play a major role in 1941.

In 1914, there was active hostility in America to the idea of participation in the European war, participation that was seen as alien to American interests and antipathetic to her ideology. However, the unrestricted submarine warfare that sank American ships (and also violated international law) had led to a major shift in attitudes in which Americans became persuaded of the dangerous consequences of German strength and ambitions; this occurred in a highly moralized form that encouraged large-scale commitment. Thus, America came to construct national interest in terms of the freedom of international trade from unrestricted submarine warfare.

Germany's crass wartime diplomacy exacerbated the situation, notably an apparent willingness to divert American strength from war in Europe by encouraging Mexican opposition to the United States. This opposition was attributed to revenge for the major losses suffered in the Mexican-American War of 1846-1848 as well as hostility to the American military intervention in Mexico in 1914. The Americans were made aware of this plan when the British intercepted a telegram to the German ambassador in Mexico from Arthur Zimmermann, the foreign minister. This episode appeared more troubling because of Mexico's instability at this point, instability that affected America directly when, in March 1916, the

Mexican faction leader Pancho Villa raided Columbus, New Mexico, killing 17 Americans. As a result, the threat of German conspiracies involving Mexico seemed particularly menacing.

Asking Congress on April 2, 1917, for a declaration that a state of war existed with Germany, President Woodrow Wilson presented an account of already-existing conflict in which the foundations of American society were challenged. He declared "that from the very outset of the present war [the German government] has . . . set criminal intrigues everywhere afoot against our national unity of counsel, our peace within and without our industries and our commerce." With reference to the Zimmermann telegram, he added, "That [the German government] means to stir up enemies against us at our very doors, the intercepted Zimmermann note to the German Minister at Mexico at Mexico City is eloquent evidence."

America had given neutrality added legitimacy for other states. In turn, influenced by America's power and example, other states followed America in declaring war, including Cuba, Panama, and, more significantly, Brazil in 1917 and other Latin American countries in 1918. Again, the same process was to follow America's entry into World War II in December 1941.

THE SUBMARINES DEFEATED

In the first four months of the unrestricted submarine attacks in 1917, the British lost an average of 630,000 tons of merchant shipping. However, as later in World War II, Britain survived the onslaught thanks both to outfighting the submarines and to success on the home front in the shape of increased food production. These factors were a key instance of the interaction of fighting methods, strategy, and the social and governmental dimensions of war. The introduction beginning May 10, 1917, of a system of escorted convoys cut shipping losses dramatically and helped lead to an increase in the sinking of submarines. Only 393 of the 95,000 ships that were convoyed across the Atlantic were sunk. Moreover, convoys facilitated the transport of over 2 million American troops to Europe, with the loss of just three transports.

THE TIDAL WAVE



JULY 4, 1918

95 Ships Launched

UNITED STATES SHIPPING BOARD EMERGENCY FLEET CORPORATION

U.S. Shipping Board poster celebrates America's increasing naval power during the war.

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Convoying was an aspect of the direction on a global scale by the Allies of most of the world's shipping, trade, and troops flow. The Allied Maritime Transport Council oversaw an impressive system of international cooperation at sea, allocating shipping resources so that they could be employed most effectively.

The American contribution was crucial in the struggle against submarines. Although they lacked experience in antisubmarine warfare, the Americans deployed their large fleet to help protect communication routes across the Atlantic. American destroyers were important in this role and the movement of American battleships to British waters helped further shift the balance against Germany in surface shipping, thus leading to a greater focus on the submarine war.

AIR WARFARE

Manned flight by aircraft began in 1903, and the military potential was rapidly grasped. By 1914, the European powers had more than 1,000 aircraft in their armed forces. At the outset of the war, reconnaissance was the key aerial capability, one in which planes replaced cavalry. There was also bombing from the air during the war, initially from German Zeppelin (hydrogen-filled) navigable airships, the first of which had been successfully flown in 1908.

Subsequently, although there were only limited changes in airships, the capabilities of aircraft improved. Improvements in aircraft speed, maneuverability, and ceiling made it easier to attack other planes. Engine power increased and engine size decreased. Synchronizing (interrupter) gear, invented by Fokker, enabled airplanes to fire forward without damaging their propellers.

In 1915, the Germans used Zeppelins to bomb London in an attempt to provide a strategic outcome, but the fragile Zeppelins were vulnerable to British planes. The Germans subsequently switched to bombing from aircraft in an attempt to crush British morale and thus circumvent the impasse in the trenches. An air assault on London from June 1917, however, served only to ensure a hostile popular response. Moreover, in the rapid action-reaction cycle that characterized advances during the war and that was to be seen again during World War II, the raids resulted in Britain in the speedy development of a defensive system involving high-altitude fighters based on airfields linked by telephone to observers, which led to heavy losses among the German planes and to the abandonment of daylight raids.

The British Royal Air Force was established as a separate force on April 1, 1918. This independence from the army was not only a testimony to the argument that such an organization would make it easier to pursue air control, but also a reaction to the demand for retribution for the German raids on Britain. Airpower, moreover, was designed to affect trench warfare and to surmount the deadlock of the trenches by permitting the destruction of the enemy where they were vulnerable.

Alongside bombing, there was a development in aerial ground attack, with the capability and range of ground-support operations expanding. In 1918, the Germans used ground-attack squadrons to support their offensives on the western front, whereas regular Allied air attacks on their supply links inhibited German advances. Aircraft engaged moving tanks.

By the close of the war, the extent and role of airpower had been transformed. By 1918, the British had 22,000 aircraft. Moreover, the combined Franco-American-British force of 1,481 aircraft employed to support the successful American attack on the St. Mihiel salient on September 12 not only was the largest deployment so far, but also gained air control, which was not usually possible during the war. In practice, indeed, many of the hopes of airpower were based on a misleading sense of operational and technological possibilities, and its prime value remained aerial reconnaissance throughout the war.

Because air defense was difficult compared with what was to follow during World War II, it proved easier to attack with fewer losses than in the later war. German cities were bombed, but the purpose of degrading industrial and logistical capability proved difficult in practice. Moreover, there were civilian casualties, which underlined popular bitterness. At any rate, the British exaggerated what their bombers had achieved, and this exaggeration greatly affected interwar discussion of strategic bombing, leading to a misrepresentation of its potential, which fed into the doctrine and practice of British airpower during World War II.



French cavalry, with dirigible providing air support, 1915.

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WAR AND SOCIETY

The black-and-white photographs of the wartime devastation of the French city of Rheims are still shocking. Close to the front line, the city was heavily shelled by the Germans from 1914. Most of the city was flattened and the historic cathedral was partly destroyed. This was not an atrocity by troops under no real control, but a deliberate action, and it showed from the outset that this would be a war between peoples.

So, indeed, it turned out to be, in large part because the war lasted far longer, and on a greater scale, than had been anticipated, entailed unprecedented efforts, and involved a major mobilization of the resources of society as a result. The war put enormous pressure on societies not used to the scale of such a conflict. In response, there was a mobilization and organization of resources that greatly expanded the scope of governments and thus changed the nature of the state and its relationship with society. Thus, in Britain, the government took over control of the railways (1914), the coal mines (1917), and the flour mills (1918). Conscription, introduced in Britain in 1916, helped push the size of the armed forces up to 4.5 million in 1917-1918, one in three of the male labor force.

Attempts to rally public opinion include the formation of the Department of Information, which, in 1918, became a ministry. Responding to the propaganda possibilities of film, the War Office created the Cinematograph Committee. Rising amounts of propaganda in Britain and elsewhere were accompanied by a change in the character of propaganda, with the war, toward the demonization of opponents. This change foreshadowed the heightened international ideological struggle that was to be seen until the end of the Cold War in 1989. Surveillance also became more important, with a major growth in numbers and powers: in Britain, the numbers in Special Branch increased from 80 in 1914 to 700 in 1918, and in MI5, the home security service, from 14 to 844. Other states faced comparable pressures and also increased governmental power.

There was a general pattern of social disruption, if not transformation, as a result of the war. The consequences varied by combatant, but the pressures were similar. The social order was affected by higher inflation, greater taxation, an extension of state control, and the spread of trade unionism and female employment.

This process could be readily seen in Britain, where, before the war, pressure from the suffragette movement for women gaining the vote had been vociferous, albeit unsuccessful. During the war, new roles, many in industry, were performed by women. Their part in the war economy was central, not least because large numbers of women workers were recruited by the Ministry of Munitions from 1915. This work was frequently a cause of ill health, if not death, because of trinitroglycerin poisoning. As a result of rising employment in industry (as opposed to domestic service), the female percentage of trade unionists increased from 7.8 in 1900 to 17 in 1917. In factories, women were controlled by male foremen and they received lower wages than male workers; nevertheless, there were more



A 1917 poster depicting French women in wartime.

women. Women who served near the front, such as the nurses and telephonists with the American army in 1917-1918, found that the military hierarchy expected them to fulfill traditional gender roles and made scant allowance for their contribution. The latter was also the case for the First Russian Women's Battalion of Death established in July 1917 in an unsuccessful attempt to bolster morale. The unit, which suffered heavy casualties, was not matched by the Western Allies.

More generally, most assumptions about gender were deliberately not disruptive. Thus, female war workers in Britain were regarded as temporary and were not permitted to retain their jobs after the war. Furthermore, the notion of a home front was an aspect of an affirmation of established gender concepts and roles, with women again regarded as nurturers.

At the same time, society changed during the war. Women entering the workplace proved a key element in social change. This was particularly so in Britain, where this process was linked to the extension of voting rights to women immediately after the war. Social change was therefore linked to democratization in Britain, as it also was in the very different context of Germany once it had been defeated and become a republic. The large-scale recruitment of women for the war effort greatly affected social assumptions. The concept of women as occupying a separate sphere, an idea developed in part because of pressure for women winning the vote, buckled under the pressure of major changes in the world of work for women.

women earning wages than before and their wages were higher than prewar wages. For agricultural work, the Women's Land Army was established in 1917. There was also a direct role in the war. Whereas only 72 army sisters had been employed in British military hospitals in 1898, a total of 32,000 women served as military nurses in 1914-1919. In this case, women had a place in the command structure: they were able to give orders to male ward orderlies. Founded in 1917, the Women's Army Auxiliary Corps provided clerks, cooks, drivers, and storewomen.

There was a persistence in gender as in class-based attitudes and practices, notably in recruitment and promotion. In Britain, middle-class women tended to be nurses, and working-class women were store-

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New opportunities for women were related to their increased mobility and independence. This included a decline in control and influence over young women by their elders, male and female. As a consequence, there was a new sexual climate. Chaperonage became less comprehensive and effective, and styles of courtship became freer. Illegitimate births in Britain rose to 6 percent in 1918. Furthermore, there was a greater interest in the informed public discussion of sex, with an emphasis on mutual desire as its basis. Marie Stopes's influential *Married Love* was published in Britain in 1918, the same year in which women got the vote in Britain.

WINNING THE WAR

There is a certain symmetry to World War II that is lacking for World War I. In World War II, Axis success rose to a peak and then receded, providing a basic narrative for the war and thus a clear structure for, and prompt to, analysis. All except one of the major Axis offensives in the latter half of the war were counterattacks, like Kursk in 1943, Leyte Gulf in 1944, and the Bulge in 1944, and unsuccessful ones at that. The exception, Operation Ichigo, brought much of southern China, a substantial area, under Japanese control in 1944-1945 and is invariably underplayed in general histories of the war.

In World War I, there is no similar pattern. Central Power attacks were very important, not only in the initial year of the war, but also in 1915 (Eastern Europe), 1916 (western front and Romania), and 1917 (eastern front and Italy). So it was also for 1918. Indeed, insofar as there is the peak referred to above, it occurred in July 1918, with the end of the repeated German attacks on the western front that year. Insofar as there was a symmetry, it was also in 1918, with German power still apparent in the first half of the year and notably increasing in Eastern Europe, in the aftermath of Russian weakness, but the situation then changed radically as Germany lost in the West.

At the beginning of the year, the strategic situation was propitious for the Germans as a result of the Russian Revolution, but it was unclear how rapidly the Revolution would lead to an end of the war in the east and how quickly the Germans would be able to redirect their military effort elsewhere. A total of 62 divisions were moved from the east to take part in the offensives on the western front in 1918, and they comprised close to a quarter of the divisions that took part, although had the Germans not been keen on more territorial gains in Russia, which led them to continue to advance, more troops could have been moved west.

The Germans were to gain major swaths of territory in these spring offensives on the western front, first launched on March 21, in part as a result of the effectiveness of their tactics, which had been used in 1917 at Riga and Caporetto. However, this enhanced German tactical effectiveness was not matched operationally or strategically, and the resilience of the Allies looked toward their success later in the year.

The weight of Allied resources was also apparent in 1918. On July 18, the successful French-led counteroffensive in the Second Battle of the Marne was supported by a creeping barrage, with one heavy shell per 1.27 yards of front and three field artillery shells per yard, as well as an effective use of tanks and aircraft. In the face of this pressure, large numbers of German troops surrendered or reported as too ill to fight. The Allies had now gained the initiative.

Furthermore, there had been no realizable political goals to accompany the German offensives, not least because the army leadership remained opposed to a compromise peace and insisted, instead, on a territorial settlement providing plentiful gains and focused on strategic factors, namely ending German weakness in the face of a future two-front war. The Allies were not going to accept German territorial gains, and political support for the war was sustained in Britain and France during the crises of the German attacks. Insofar as there was growing exhaustion on the part of much of the civilian population in the three powers, it did not affect the politics of the conflict, other than encouraging the view that advantages had to be pressed home.

The failure of the German submarine offensive contributed greatly to the weak German position. By 1918, the rate of Allied tonnage sunk per German submarine lost had fallen, and the strategic irrelevance of the submarine threat was demonstrated by the arrival of the American army. In April–October 1918, more than 1,600,000 American troops crossed the Atlantic, transforming a German superiority on the western front of 300,000 men in March 1918 to an Allied superiority of 200,000 men four months later. From July, the Americans came to play a significant part in Allied operations, but they alone were not decisive. It cannot be said that their attacks inflicted key defeats on the Germans, and the Germans were skeptical of their tactical skill. American troops tended to repeat the British and French mistakes of 1915 and 1916 before they took heed of the lessons and applied the newer tactical methods to the battlefield. Yet, the Americans fought bravely, advanced successfully, and inflicted, as well as suffered, heavy casualties. Moreover, by taking up large sectors of the front, the Americans not only contributed their own efforts, but also freed up French units to fight elsewhere on the western front; and because the Germans were threatened with attacks along the front, they could not produce any reserves to block Allied breakthroughs. Segregated black units were among those that fought well in the American army, although they were not treated fairly, receiving less training and equipment.

The war proved very important in the transition of the American military into a modern, large-scale force able to compete with similar militaries. This had not been the situation over the previous century as America's opponents, principally Native Americans, Mexico, and Spain, had all been weaker militarily, whereas the Civil War had been seen as a short-term emergency that did not establish a pattern for military activity, capability, and organization. The warfare of 1861–1865 also did not see the weaponry in use in 1918, either the range of types or the lethality.

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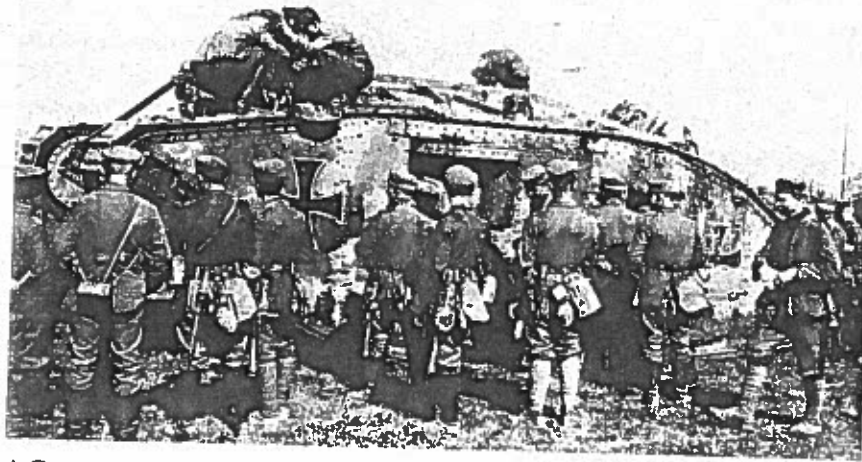
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The challenge for the Americans in 1918 therefore was not simply of scale, but also of confronting a new type of war and against an experienced and powerful opponent while, moreover, doing so at a distance and in association with allies. This challenge set the pattern for much subsequent American thinking about war. Because the war ended before American forces could play the major role envisaged for the 1919 campaign, their potential was not yet clear to all contemporaries, although the Germans were well aware of the issue. Having failed to win a quick victory by unrestricted submarine warfare or by attacking in the west in the spring of 1918, Germany had lost. The example and its implications had not been adequately digested by Hitler and his circle when Germany declared war on America in December 1941.

There is a contrast between accounts of Allied victory that focus on the out-fighting of the German army on the western front in 1918 and those that emphasize, instead, the internal crisis created by the strains of the war, specifically as a result of the blockade and the serious problems this created for the German economy and German living standards. The latter approach offers the emphasis on the home front seen in the dominant "war and society" approach to military history. Moreover, the extent to which the Germans were outfought in practice was not one that was to attract adequate subsequent attention at the popular level. The Germans, in particular, preferred the "stab-in-the-back" legend, attributing defeat to left-wing disaffection at home. This was an argument that was to be employed by the Nazis, but not only by them. In fact, although strains on the home front were serious, the key element in 1918 was that German forces were outfought in the field, defeated, and dramatically driven back on the western front, in the very theater of operations where their strength was concentrated. The same was true for Germany's allies.

This problem does not exhaust the issues posed by Allied victory because, focusing on the fighting, it is necessary to qualify, indeed challenge, the explanation of victory in terms of new weaponry, specifically the British and French use of the tank, but also with an emphasis on aircraft. In practice, some of the statements subsequently made on behalf of the wartime impact of the tank, as of aircraft, reflected not an informed critical assessment of the operations in the war, but the competing claims about weapons systems made by their protagonists in the 1920s and 1930s. There was also to be a projecting back onto 1918 of the role of the tank in World War II and subsequently.

Nevertheless, the tank opened up a clear difference in resources, innovation, adaptability, and tactical outcomes between the Allies and the Germans, who had few tanks. A total of 430 British tanks broke through the German lines near Amiens on August 8, a battle that Ludendorff, the German chief of staff, described as the "Black Day" of the German army. The British captured 12,000 prisoners and advanced seven miles that day, and the Germans were unable to reverse their loss. Tanks overcame one of the major problems with offensives against trenches: the separation of firepower from advancing troops and the consequent lack of



A German tank undergoing repairs, a not-uncommon occurrence.

flexibility. Tank support made it possible for advancing units to confront defended positions and counterattacks. Tanks offered precise tactical fire to exploit the consequences of the massed operational bombardments that preceded attacks.

However, tanks faced a range of issues and problems, including firepower, speed, durability, reliability, and communications, as well as the development of antitank measures. To operate most effectively, tanks needed to support and to be supported by advancing infantry and artillery. This lesson had to be learned repeatedly during the century in the face of pressure from enthusiasts for tanks alone.

Despite the limitations of Allied tanks and airpower, the Germans, thanks to Allied improvements, had lost their advantage in weapons systems. In turn, the Allies had enhanced the strengths and utilization of their earlier weaponry, particularly their artillery. In place of generalized firepower supporting operations, by 1918 there was systematic coordination, reflecting precise control of both infantry and massive artillery support as well as better communications between them. The British had also developed planned, indirect (three-dimensional) firepower. In contrast to direct fire, the use of indirect fire depended on accurate intelligence, including the extensive use of aerial photography as well as of sound ranging (to ascertain the location of opposing guns), surveying, and meteorology.

Technology, tactics, and training were brought together by the Allies in a cooperation that offered major advantages, both with artillery and with infantry. Whereas the armies of 1914 had lacked suitable tactics to cope with firepower and stalemate, the invention and deployment of reliable weapons for trench warfare attacks in the form of grenades, light machine guns, and light trench mortars permitted the effective infantry tactics used by the attacking Germans and then the Allies in 1918. Moreover, the development by the British of deep battle, in which targets beyond the front, including reinforcements and headquarters, were being

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effectively bombarded, multiplied the impact of firepower, and mobility was restored to troops and the battlefield; it was no longer the case that the strategic level was swallowed up by the operational and the operational by the tactical.

The Germans, in addition, were put under great pressure in 1918 from the successive collapse of their allies as Bulgaria, Turkey, and Austria were defeated. Fighting quality, military morale, and governmental determination all collapsed in these states. In Germany, weak domestic support after the failure of the spring offensives was also a major problem, as were growing problems for military morale. These problems reflected both a German sense that they were being out-fought and the pressures of the home front. Large numbers of German troops surrendered as the Germans were pushed back onto the defensive, and the German officers no longer felt they could rely on their units.

Furthermore, the continuation of the Allied offensive from the summer into October 1918 indicated that this campaign was to be different from the others earlier in the war as the impetus of attack could be maintained. This prefigured the marked improvement in Soviet, American, and British operational capability that was to be seen in 1944. Not only did the Allies overcome the tactical problems of trench warfare in 1918, but also they had developed the mechanisms, notably greatly improved logistics, and deployed the resources, especially large numbers of guns, necessary to sustain their advance and offensive in the face of continued German resistance and across a broad front. The contrast with the German offensives in the spring was readily apparent. Successive German defense lines were broken through, with the Americans taking heavy casualties as they fought their way through strong defenses in the Meuse-Argonne offensive.

As confidence in victory collapsed, the Germans accepted President Woodrow Wilson's terms for peace, including that Germany be transformed into a constitutional state and that the armistice terms be such that Germany be unable to renew hostilities. On November 9, Wilhelm II was forced to abdicate, and two days later the armistice was signed. It came into force at 11 AM and the guns fell silent.

CONCLUSIONS

Casualty figures for the war were extreme: 9.45 million men died and millions more were badly injured. About 2 million Germans, 1.8 million Russians, 1.4 million French, 1.3 million Austrians, 1 million from Britain and the British Empire, and 116,000 Americans died. Moreover, casualty rates were high, including 27 percent of all French men between the ages of 18 and 27. For several states, notably France and Britain, the casualties were greater than in World War II, although that was not the case for Germany, Russia, or America, let alone Japan. Although civilian losses were to be far greater in World War II, there was also in World War I the massive civilian loss caused by the destruction, disruption, and disease brought by conflict.

The devastation of World War I was unprecedented and intense, leading to the immediate physical shock arising from the nature of the battlefield, particularly

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