Michael C.C. Adams, *The Best War Ever: America and World War II* (Baltimore: Johns Hopkins University Press, 1993).

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The Patterns of War, 1939–1945

WORLD WAR II began when Germany invaded Poland on September 1, 1939. Few experts gave the obsolete Polish forces much chance to win, but the speed and completeness of Germany's victory were startling. By September 14, German forces were in the rear of Poland's capital, Warsaw, and had completed a giant encircling movement, trapping the major Polish armies in a net to the north. By September 27 significant resistance had ended. Polish defeat was due not only to inferior equipment, as the Germans, too, had their share of cavalry and horse-drawn transport. Hitler's forces introduced a new method of waging war, the blitzkrieg, or lightning attack.

The Polish undertook a conventional deployment that looked back to the patterns of World War I. Major armies were spread out in largely immobile defensive positions to protect as much as possible of the northern provinces bordering Germany. Tanks were divided piecemeal as supports to the infantry. Communication with reserves to the rear was largely by rail. Poland expected a slugging match on this broad front, but Germany changed the nature of the battlefield and obviated the necessity of meeting the bulk of Polish forces head on.

The Luftwaffe quickly took out the opposing air defenses and then roamed at will between the Polish armies and their supports, severing communications and numbing their ability to react. Tanks, instead of being squandered in small numbers, were concentrated in powerful panzer (armored) units, which brought overwhelming superiority to bear on weak spots in the enemy disposition and then punched through these into the rear. Conventional wisdom would have had them then stop and battle the enemy. But the panzers kept going, striking deep into the enemy heartland, sowing terror and defeatism, while the infantry behind them exploited the breakthrough to encircle

and contain the enemy. The Germans used technology and innovative planning to avoid the mass slaughter of World War I. Blocked from retreat and cut off from support, the emasculated Polish forces necessarily capitulated.

This innovative battle practice has framed our image of World War II, which is seen popularly as a mobile war dominated by fast-moving machines delivering surgical strikes in the air and on land, much like a high-tech video game. It is clean and swift. This concept was encouraged by the Germans, whose newsreel film showcased the panzer attacks and downplayed glitches in execution. On our side, the popular heroes from the war tended to be hard-driving tank generals like George Patton, who we believed exploited our superior technological know-how to outfight the Germans at their own game of mechanical warfare.

There is some truth in the image. But this kind of mobile warfare, in which relatively small forces captured huge territories quickly, primarily characterized the opening phases of the war up through 1941. In this period, German and Japanese forces defeated opponents whose equipment was often obsolete and whose generals were wedded to past ideas. The Axis needed to fight a war of breadth, of swift victories, because their armies and economies could not withstand a war of attrition. After successfully launching bold campaigns, they hoped for a negotiated peace on the basis of their gains.

When peace did not come and the pendulum swung against them as the Allies took back occupied territory, the pattern of conflict shifted considerably from a mobile one to a punishing grind-it-out war of attrition, which the Axis could only lose. Against dug-in, competent, and often fanatical Axis troops, the Allies had to apply massive firepower to winkle out resistance in ground combat, reminiscent of World War I. There were periods of fluid warfare, as in the African desert, or in France, Belgium, and Luxembourg after the Allies broke out from the Normandy beachheads. But in Russia, Italy, Normandy, and the Pacific, the fight was largely ditch to ditch, in a blasted landscape where misery for the individual soldier was maximized. Illustrating the ease with which we can exaggerate the role of armor, only 16 of 59 American divisions in Europe were armored. Of 520 German divisions in the war overall, a mere 40 were panzers.

With Poland eliminated and Germany reunited in the east, Hitler gathered strength to deal with the democracies in the west. Meanwhile, Russia moved to cushion its borders against Hitler: on September 17, 1939, the Soviets invaded and subsequently occupied about half of Poland. In the following months they forced Finland to relinquish

some disputed territory and annexed the Baltic states of Latvia, Estonia, and Lithuania.

The United States had early declared its neutrality. But FDR persuaded Congress to alter the neutrality acts, which prohibited sales of war materials to belligerents, so that France and Britain could buy arms on a cash-and-carry basis. This was a crucial step in aiding these democracies. And as Britannia still ruled the Atlantic waves, guns could get through. Hitler attempted to cut this lifeline by using submarine warfare, and the battle of the Atlantic thus began to assume a pivotal role in the European war. America, though not in the war, was moving under FDR's leadership to solidarity with the free nations of Europe.

In April 1940, Hitler, concerned with guaranteeing the flow of vital raw materials such as iron ore from the north, struck Denmark, whose fifteen-thousand-man army quickly surrendered, and Norway, which put up a stiffer fight. British and French military support failed to save the situation, and the outclassed Norwegians had to capitulate.

In May, the major blow fell in the west—but not where it was expected. The French and British, preferring the defensive, awaited a German attack. But where? On their right flank, across northern France, were strong concrete bastions forming the imposing Maginot Line. The center was lightly held because it fronted the Ardennes forest, considered impassable to armor. The blow would probably fall then on the left flank, against the weak armies of neutral Holland and Belgium. Expecting this, the French and British planned to move their main forces to support the left when Hitler attacked.

But while moving northeast into Belgium, the French and British would enter a relatively narrow landspace, where they might be trapped between the attacking Germans and the coast. The Germans understood this. They attacked this left flank with their infantry, enticing the British and French to move forward into the box. Then panzers swept through the Ardennes behind them, cutting them off from the body of France. It was as though the Allies had entered a narrow room and the door had slammed behind them.

Holland surrendered quickly, and as Belgian defenses crumbled, the British and French were forced back against the Belgian coast. At this point, the Germans let slip a golden opportunity to bag the beleaguered Allied forces. While the panzers paused to regroup, the Allied navies, between May 26 and June 4, rescued 224,000 British and 114,000 French troops from the port of Dunkirk and took them to Britain. Bereft of allies, the remaining French armies fought on until June 16, when they surrendered.

Hitler expected peace with Britain. But Dunkirk had changed the British mind-set. Distrustful of France and reluctant to fight a continental war, they had shown limited enthusiasm before Dunkirk. But now, their backs to the wall, they warmed to the fight. Hitler would have to invade Britain. To do this, he would need the Luftwaffe to keep the Royal Navy from interfering with his invasion fleet in the English Channel. This meant air control, and this in turn necessitated destroying the Royal Air Force. In the ensuing Battle of Britain, fought in the summer and autumn of 1940, the Luftwaffe failed to do this.

The British fighter planes were at first outnumbered, and this led to the legend of the "few" who supposedly saved Britain against enormous odds. But the disparity was never that great, and British fighter plane production surpassed Germany's by the fall of the year. Also, the British had a radar early warning system. And with the help of Polish cryptologists, their Ultra intelligence unit had deciphered the German Enigma coding system that transmitted operational orders, so that the RAF often knew the enemy's intentions. The Germans had a further disadvantage. Many of their planes were designed for close ground support and had neither the range nor the performance for the kind of strategic air offense they were undertaking. Their fighter bombers proved particularly vulnerable to the Hurricanes and Spitfires of RAF Fighter Command. Failing to destroy the RAF, the Germans turned to blitzing British cities in the hope of breaking civilian morale, as prewar theorists said they could. But German bombers had a low payload and no chance of success. In six months they dropped only thirty thousand tons on Britain. By comparison, in a similar period during 1944, the Allies dumped twenty times as much on Germany. British morale went up under the attack, and RAF Bomber Command was to take an enormous revenge on German cities as the war increased in intensity.

The survival of Britain was a major factor in Germany's defeat, for Hitler now had an implacable enemy on his western flank, an enemy that had increasing material assistance from the great manufacturing nation across the Atlantic. The United States, said FDR, could not be a spectator in a world dominated by force. In September 1940 America introduced a military draft, and in late autumn lend-lease was announced. Britain was running out of money, and so America would "lend" it tools of war, even though the loan could not be repaid, except in favorable trade relations after the war and other concessions. America, said Roosevelt, must become "the great arsenal of democracy." The United States also extended naval protection to British-bound convoys and steadily widened the zone of American oversight to the mid-Atlantic. American and German warships were exchanging fire by the

fall of 1941, as America extended a lifeline to the struggling British.

If Hitler's failure to crush Britain was crucial to the course of the war, so was his invasion of Russia. Keeping his promise to destroy bolshevism and gain Germany living space to the east, Der Fuehrer launched Operation Barbarossa on June 22, 1941. Three million Germans and their allies—Italian, Finnish, Hungarian, and Romanian soldiers—attacked in three army groups aimed at the major productive regions centered on Leningrad, Moscow, and Stalingrad. Gains in territory and captured forces were huge, but the massive distances frustrated even the German war machine. By the onset of winter, none of the major cities had fallen. And the Russians, whose men and equipment were better prepared for the bitter weather, counterattacked in December. The Axis took the offensive again in spring 1942 but failed to strike lethal blows. By fall they were stopped and would spend the rest of the war in a massively costly attempt to hold their ground.

Russia was the graveyard of the Wehrmacht (German army), which bled to death on the eastern front. By February 1942, it had lost 1,164,000 men. The Russians paid an even higher price, and without their sacrifice the Allies could never have retaken occupied Europe. As late as D-Day, in June 1944, 70 percent of Germany's manpower was in Russia, leaving Germany's western flank vulnerable to invasion. It is now clear that Barbarossa was a huge mistake, but this was not clear at the time. The American military at first estimated that Russia would collapse in four to six weeks. Before the war, Stalin had weakened his officer corps by liquidating senior men whose loyalty he suspected, and the Red Army had not performed well in Finland, due to poor leadership and obsolete equipment. But everyone in the West underestimated the resilience of the Soviet regime, the patriotism of the Russian people, and the productive capacity of their industry. The Soviets turned our armor and planes superior in quality and quantity to the Axis arsenal, and they were aided after 1941 by American lend-lease. At one point, the Russians may have had perhaps ten thousand tanks to oppose Germany's twenty-five hundred.

The swing year in the fortunes of the contending nations was 1942. It opened with renewed Axis offensives in Russia and spectacular Japanese conquests in the Far East. But it ended with the Allied nations taking the initiative back. Most crucially, on December 7, 1941, the Japanese attacked the American Pacific fleet at Pearl Harbor. The United States was now officially in the war—the third factor, along with the Battle of Britain and the invasion of Russia, that explains the Axis defeat. The relative fighting efficiency of Germany and Japan

peaked and declined during this year. Both had made serious errors, underestimating the willpower of their opponents to fight a war to the finish despite crushing defeats. This was particularly true of their opinion of the United States, which they stereotyped as too materialistic and pleasure-loving to endure long the sacrifices of war.

Both Axis powers were made complacent by their early successes, cutting back, for example, on aircraft production just when the Allies were increasing theirs. The Axis countries had acquired a mistaken reputation for internal totalitarian efficiency, but the Nazi state, for example, was corrupt and inefficient. It crippled its own creative capacities by liquidating talented "undesirables." Though cooperation among the Allies was faulty, it was worse between Axis nations. By May 1942 the Nazis knew that the Allies had cracked Japanese codes, but they didn't warn Japan. Hitler expected significant military help from his puppet state, Vichy France, and from Franco's Spain, but he didn't get it. Italy was a military liability, requiring constant German bolstering. There was no way that in a war of attrition the Axis could match the Allies in numbers of men and materials of war, particularly given American productive capacity.

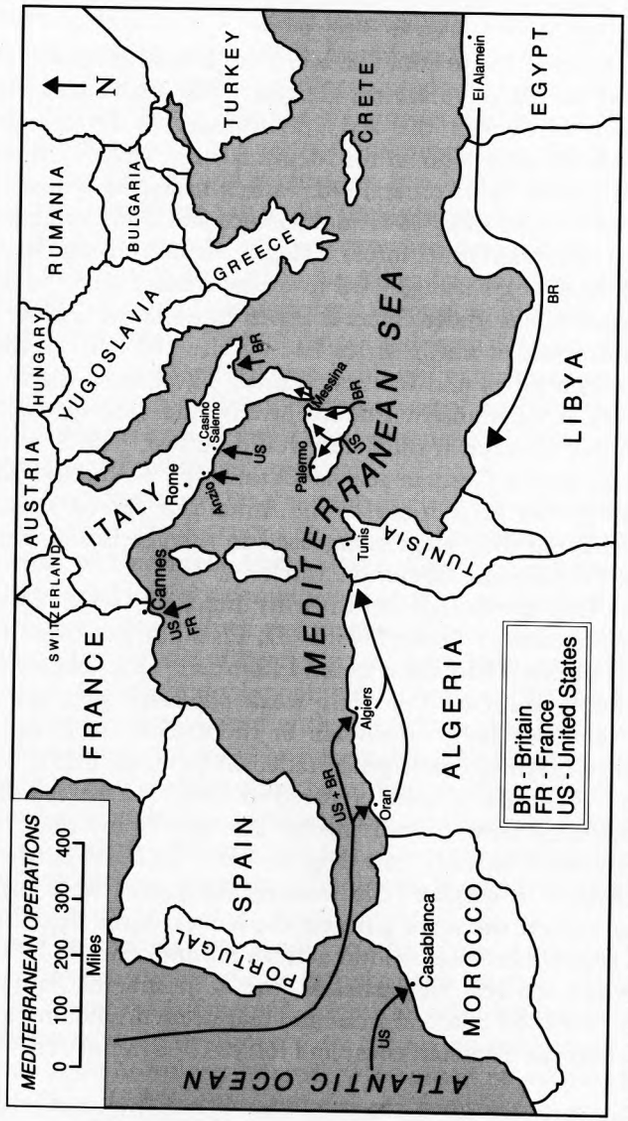
This did not make the task of defeating the Axis easy or the path to victory obvious. The decisions facing the democracies were particularly difficult. In December 1941, at the Arcadia Conference, America and Britain established a combined military command and confronted the tough question of which enemy should have top priority, Germany or Japan. In the month of Pearl Harbor, with Japan still making enormous gains, American public opinion favored putting the Pacific first. But American leaders agreed with the British that Hitler represented the greatest threat and could be unbeatable if he knocked Russia out of the war. The major effort must be in Europe. The Americans pressed for an invasion of France and Germany, the heart of Hitler's Fortress Europe, in 1942 or 1943 at the latest. They felt this was necessary to help the beleaguered Russians. The British thought this timetable too optimistic.

A cross-Channel invasion would require a huge American buildup in Britain, and this in turn meant winning the battle of the Atlantic, a victory by no means guaranteed. American shipping losses were heavy, partly because of inexperience with convoying techniques, partly because the lights were not immediately turned off on the East Coast and the silhouetted merchantmen made good targets for lurking U-boats. The Atlantic war would not be won until mid-1943, a victory due partly to growing American experience with convoying, and partly to Allied warships being equipped with sophisticated submarine tracking devices, such as sonar. And, at the end of 1942, Ultra broke the U-boat code, so the Allies could eavesdrop on the undersea raiders. Of 1,175 U-boats, 785 were sunk (191 by Americans). Germany sank 23.3 million tons of Allied shipping, but the democracies built 42.5 million replacement tons.

Until the Atlantic battle could be won, the British proposed the alternative of an air offensive against Germany and a land attack in the Mediterranean to weaken the Axis preliminary to an invasion of France. Why here? In pursuit of his Mediterranean empire, Mussolini had attacked Greece in October 1940. Failing badly, he pulled in the Germans, who in April–May 1941 took Greece and Crete at significant cost to their elite airborne forces. These Mediterranean air bases threatened British ships bringing oil from the Middle East. Increasing the threat, Axis forces under General Erwin Rommel on the southern Mediterranean coast of north Africa had by late 1942 driven through Libya to threaten Egypt and the Suez Canal. The British Eight Army faced Rommel at El Alamein. Should British forces be defeated, the Middle East and its crucial oil fields would be lost. The British proposed landings in the German rear at Casablanca, Oran, and Algiers, on the Vichy French African coast. The Americans agreed, though reluctantly, believing they were being used to salvage British imperial possessions. This became Operation Torch.

In October 1942 the British Eighth Army attacked, and in November British-American forces under Dwight D. Eisenhower's overall command landed on the Vichy coast behind Rommel. This successful amphibious landing against a relatively weak opponent gave the Allies experience that was later invaluable in the D-Day landings. There were difficulties. Allied intelligence failed to properly utilize sympathetic French officers who were prepared to cooperate instead of fight. Some Allied equipment proved inadequate: the Grant tank, whose cannon could traverse only 180 degrees—only half the battlefield—proved a liability in combat. GIs wearing sunglasses were killed by snipers, who caught the sun's glint on the lenses. Some British armor was lost in costly piecemeal frontal attacks reminiscent of nineteenth-century cavalry charges. Nevertheless, the outnumbered Axis forces, bereft of air cover and taken in front and rear, were driven into a dwindling pocket on the Tunisian coast and forced to surrender on May 10, 1943.

Having saved Africa and the Middle East, the next logical move was to Sicily immediately to the north—which would give the Allies a foothold in the northern Mediterranean. The Americans preferred to invade France but acquiesced in deference to British experience. The



Map 1. Mediterranean Operations

British Eighth Army would drive up Sicily's eastern coast, while Patton's American Seventh Army would run block on their left flank. The target was Messina, a port on the northern coast, which if taken would stop the Axis garrison from evacuating to the Italian mainland. The aim was to cork the bottle at Messina.

The landings took place successfully on July 10, 1943. Although Allied naval gunners shot down some of their own airborne troops and other troops landed in the sea, the operation soon improved. While the British advanced cautiously against stiffening German resistance, Patton struck through weak Italian forces to take Palermo, on the west coast of the island, before turning east toward Messina. But he too now faced tough German rearguard action. Also, British and American commanders failed to properly coordinate their movements, allowing forty thousand Axis soldiers to evacuate the island before Messina fell to Allied troops on August 17. Their escape helped make the Italian campaign a tough one.

The debate over strategic aims now recurred. Winston Churchill strenuously championed an invasion of Italy, which would probably knock Italy out of the war, and force Germany to move some of its divisions from France to this front. This might make the cross-Channel invasion easier. Also, with Italian bases, Allied bombers could reach industrial targets in Germany and the Balkans. On the other hand, the plan had the disadvantage of taking troops away from the buildup for the invasion of France, which the Americans wanted without further diversions, believing that the Italian invasion would prove indecisive. Churchill and FDR reached a compromise by which there would be an attack on Italy but the resources allotted to that front would be small enough not to jeopardize the second front in France. This solution made diplomatic sense, but the two-front war probably meant that the generals in the Italian theater never had the tools to do the job properly, and the fighting bogged down into a bloody stalemate.

British-American forces landed in Italy on September 8 and 9, 1943, leading to the expected Italian surrender. But the Germans rushed troops into Italy. Taking advantage of the rugged terrain, which neutralized the Allied advantage in armor and provided strong natural defensive positions, the Wehrmacht fought a stubborn holding action, contesting every foot of ground and making the advance physically and mentally grueling for the troops. An attempt to outflank the Germans by landing in their rear at Anzio, on January 22, 1944, was contained by panzers, and though Rome fell on June 4, 1944, it was not until May 2, 1945, that German troops in Italy finally surrendered.

The strength of German defensive positions necessitated a massive

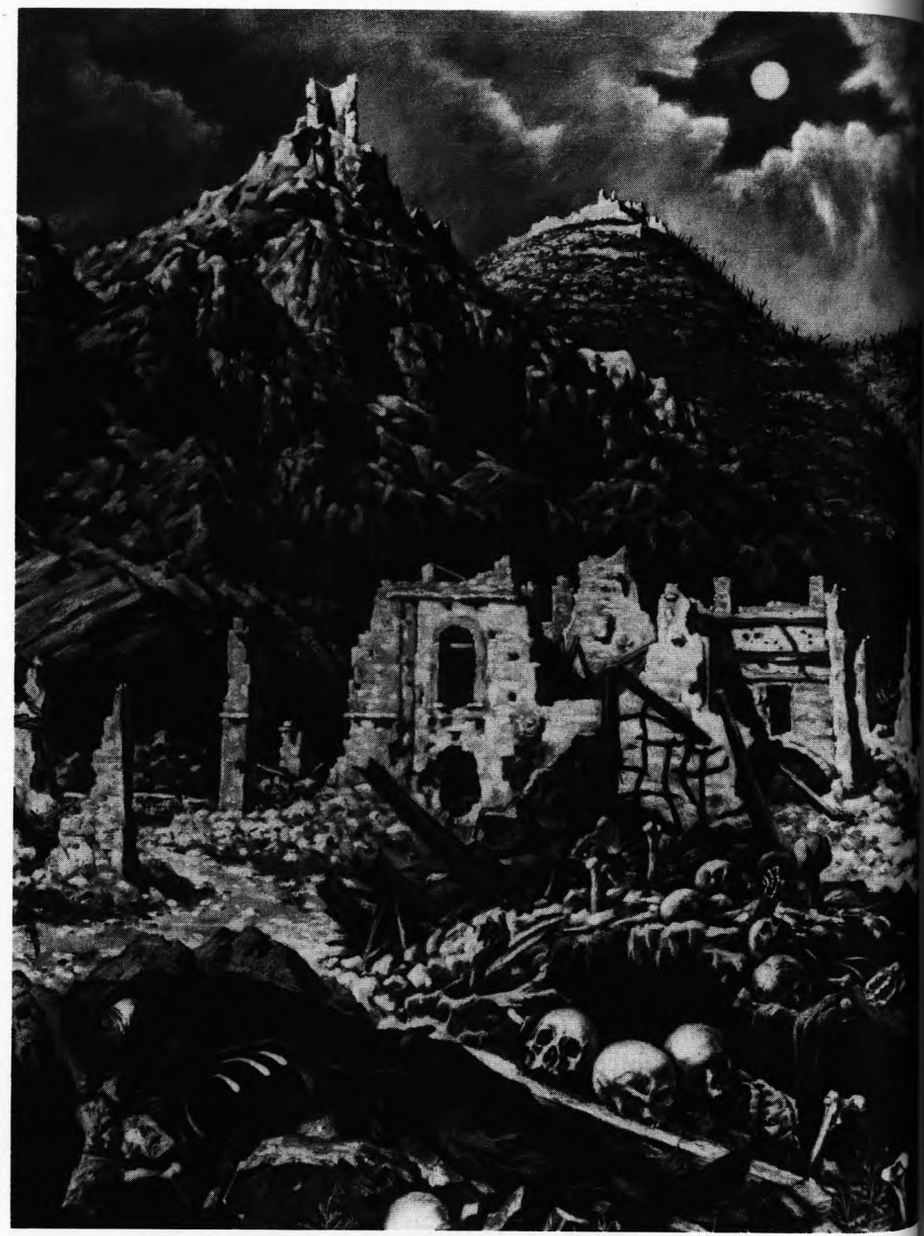


Fig. 2. The Abbey of Monte Cassino (Painting by Tom Craig, reproduced courtesy of the U.S. Army Center of Military History)

pounding of the enemy, producing enormous destruction to Italy's infrastructure. With agriculture and industry disrupted, a large percentage of the population was thrown into starvation, beggary, and prostitution. In a tragic incident, the ancient monastery of Monte Cassino, with a priceless medieval library, was ruined by Allied bombers, even though Allied ground troops suspected—correctly—that no enemy had been in the buildings. (They did then make a defensive position of the ruins.) Thus, terrain and a resourceful enemy brought about a brute force pattern of fighting that modified the surgical thrust image of combat in the war.

While the Mediterranean campaigns were progressing, the American and British air forces attacked targets in occupied Europe and Germany. Their aims were threefold: to diminish industrial production, particularly of oil and machine parts, to soften Hitler's defenses for the cross-Channel invasion, and to convince the Russians that the democracies were pulling their weight. In August 1942, the American Eighth Air Force began flying bombing missions from British bases, and in late 1943, the American Twelfth Air Force attacked targets in Germany and the Balkans from Italian fields. Yet the buildup took time. In autumn 1943 U.S. bomb tonnage represented only 15 percent of the theater total, and it did not reach parity with the RAF until February 1944.

In mid-1941 the British abandoned the illusion that they could hit military-industrial targets with surgical strikes. RAF bombsights were so inaccurate that only one of four bombs fell within five miles of the objective (Schaffer, 36). Precision bombing could be done only in daylight, which meant huge losses of bombers to air defenses, so the RAF went to nighttime "area bombing" of industrial areas in hopes of creating broad damage and demoralization.

Americans, disturbed by the collateral damage done to civilian districts by the night raids, stuck to daylight bombing. It was hoped that the B-17 Flying Fortress and the B-24 Liberator had the firepower and speed to defend themselves in daylight while delivering bomb loads onto targets with pinpoint accuracy, thanks to the Norden bombsights. In practice, American daylight raids were very costly for some time. In July 1943, 100 planes and 1,000 crewmen were lost. A further 75 airmen had mental breakdowns (Schaffer, 64). The October 14 raid on the Schweinfurt ball bearing factories cost 60 of the 291 Fortresses committed (Ellis, 197). Conditions improved with the introduction, in December 1943, of the P-51 Mustang, a long-range fighter capable of providing to-the-target protection. But losses remained high. In the

February 20–26, 1944, raids on aircraft factories, the American Air Force lost 226 bombers, 28 fighters, and 2,600 men (Weigley, *American Way*, 339–40).

The daylight sacrifices did not pay off in bombing accuracy. Under perfect conditions only 50 percent of American bombs fell within a quarter of a mile of the target. Fighter attack, flak, smoke, and cloud cover lowered efficiency. American flyers estimated that as many as 90 percent of bombs could miss their targets (Perrett, 405; Eckert, 260). Along with British area bombings, this caused huge "collateral damage" (to civilians), not only in Germany but in France and other occupied countries, creating resentment of the Allies. For example, attacks on the submarine pens at Saint-Nazaire and Lorient destroyed the surrounding French towns but left the pens undamaged. "No dog or cat is left in these towns," wrote German Admiral Karl Dönitz. "Nothing but the submarine shelters remain" (Franklin, 105).

How do we judge the strategic air offensive against Fortress Europe? There isn't a simple answer. On the one hand, hopes that air power would provide a cost-effective, clinical, and humane method of destroying the enemy's power base proved illusory. Neither Axis nor Allied air attacks slowed overall production or destroyed civilian morale: both went up under duress. The official U.S. *Strategic Bombing Survey* (1946) estimated that it cost a million dollars in planes, bases, crews, and bombs to do a million dollars in damage (Perrett, 437). Since the Allies could afford the cost more than the Axis, the Allies won.

Air attacks extended the cruelty of war. At least 635,000 German civilian men, women, and children died, along with thousands in the occupied countries (Irving, 41). Even if the Norden bombsight had proved reliable, the distinction between military and civilian targets was largely lost in total war. When bombers attacked a factory, a railroad marshalling yard, a dock, an oil refinery, or an electrical power system, they hit civilian workers and their families in the surrounding working-class housing. The longer a war continues, the greater the desensitization to enemy suffering, and the less concern about "collateral damage." By June 1944 the Luftwaffe was defeated, and Allied planes roamed at will, seeking "targets of opportunity," which inevitably included many nonmilitary structures.

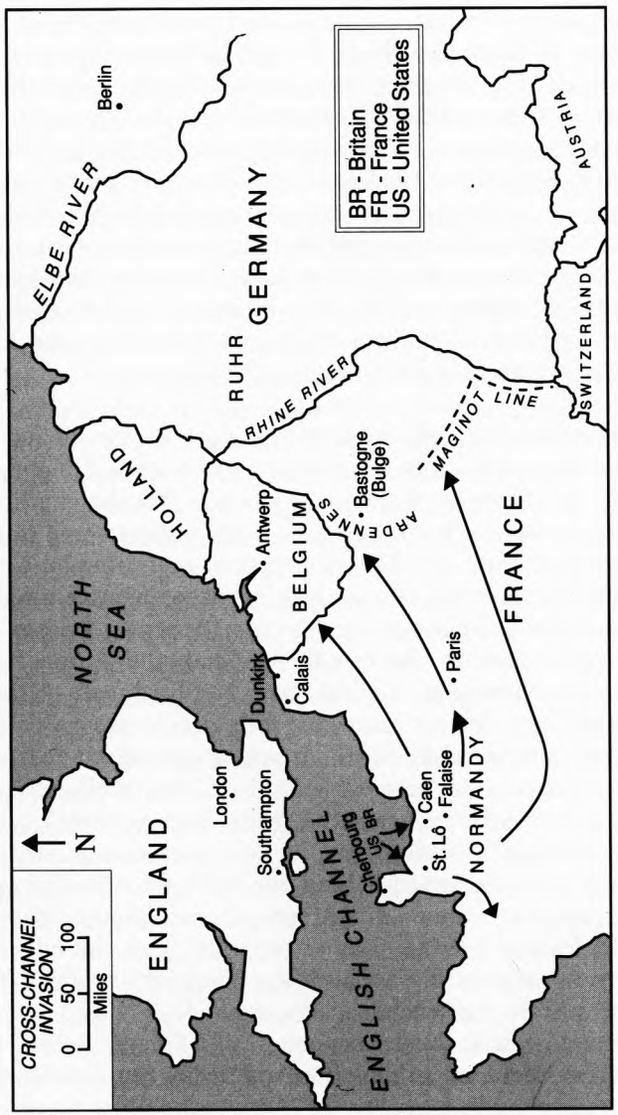
This pattern reached its extreme with the destruction of Dresden, an undefended city that had neither industrial nor military significance. On February 13 and 14, 1945, the city was bombed three times by the RAF and U.S. Eighth Air Force, creating a fire storm that killed up to 135,000 people and destroyed irreplaceable examples of medieval architecture. Military historian James M. Morris concluded that, by

the time Germany surrendered, virtually nothing of any significance was left to bomb.

On the other hand, the air offensive did make significant contributions to the Allied victory in western Europe. Although German industrial production climbed, the rate would have been higher without the bombings. By using their bombers as decoys in daylight raids and accepting a high cost in crews, Americans drew the Luftwaffe into a battle of attrition that virtually destroyed it by D-Day, vastly helping the success of the invasion and saving the lives of Allied ground forces. From March to September 1944 the transportation network in the invasion area was targeted; this campaign proved highly effective in stopping the Germans from getting their armored reserves into battle. Finally, as distinguished American military historian Russell F. Weigley argued in *The American Way of War*, attacks on Axis fuel production, begun in March 1944, were spectacularly effective and left both tanks and planes immobilized through lack of gas.

By 1944, the Axis was fatally weakened. Italy had surrendered and, in the west, the Soviets made huge advances. By October, Finland, Romania, Bulgaria, and Hungary were out of the war. Yet the conflict could not be ended without a frontal attack on the western face of Hitler's Fortress Europe: France. The D-Day invasion, beginning June 6, 1944, was completely successful: it was the biggest cooperative amphibious operation in history, involving troops from America, Britain and its Commonwealth countries, the Free French, and other European exiles. On day one, after a massive air and naval bombardment, Allied paratroops attacked key coastal locations, followed by waves of 176,000 men in four thousand landing craft. It was a remarkable feat of planning and coordination. Success was aided by Allied intelligence, which tricked Hitler into believing that the major landing would come further north, at Calais. Awaiting this, he held back crucial armored reserves, which were destroyed behind the front by Allied aircraft. By the end of June, a million Allied troops were ashore, along with 177,000 vehicles and 586,000 tons of supplies. With the fall of Cherbourg, a deep-water port that replaced the temporary artificial harbors, the ability to sustain the beachhead was assured.

The Germans were stubborn opponents. At Omaha Beach, veteran panzers nearly succeeded in denying Americans the beachhead. The landing was also handicapped by the American failure to realize the need for specialized equipment to sweep the shore of obstacles like underwater mines. The Wehrmacht, though bereft of air cover and armor, made excellent defensive positions out of the thick Normandy



Map 2. The Cross-Channel Invasion

hedgerows (made of earth, stone, and trees), which had to be cut through by bulldozers fitted with plough blades.

Allied tanks did not have the firepower needed to spearhead a breakthrough without massive artillery or air support fire. The infantry, too, called for a deluge of shells or bombs to clear the path ahead and save GI lives. "We let the artillery fight the war as much as possible," said one U.S. infantry officer (Ellis, 384). The result was massive destruction on a wide front. The devastation hindered Allied progress. Cherbourg was so battered it took three weeks to clear it for traffic. Caen, the first major British objective, was pounded into rubble, which blocked the roads the armored vehicles needed.

Finally, on July 25, the American First Army, under Omar Bradley, broke out of the pocket at Saint-Lô and reintroduced mobility to the battlefront. Part of Patton's Third Army, exploiting the gap, swung west to try to free the ports of Brittany, while the rest wheeled east to drive across France. The pace was so fast that a large part of the German Seventh Army was in danger of being outflanked and trapped between the Americans and the British and Canadians, who were now advancing in the north. The Germans were able to hold open an escape route at Falaise long enough for thirty-five thousand men to escape entrapment. They were helped by clumsy British-American coordination. But ten thousand Germans were killed, and thirty thousand surrendered. Meanwhile, a further U.S.-French landing in southern France strongly reinforced the Allies and led to the fall of Marseilles, a port whose facilities greatly aided Allied supply. Paris was liberated on August 25, and the swift American advance continued into northern France. By mid-September, the Germans were largely out of France and Belgium.

Meanwhile, the British advanced on the left toward Holland, with Antwerp as the target. Further ports were needed to keep the armies supplied with fuel, and shortages began to seriously slow progress. Antwerp was a logical choice. British Field Marshal Montgomery took the city in early September, but he failed to dislodge the Germans along the banks of the estuary from the sea to the city, so that shipping access was hindered until November 29. Montgomery's attention was distracted from Antwerp: for some time, he had been urging Eisenhower to give him the bulk of the remaining fuel for a drive that might collapse German resistance before the end of the year. He proposed a daring thrust through the Netherlands that would flank Germany's West Wall defenses and plunge into the northern regions of the Reich. The plan was imaginative but too ambitious: it relied on taking and holding four rivers and three canals to open a path for Allied armor. The high command ignored Ultra's warning that panzer strength in the

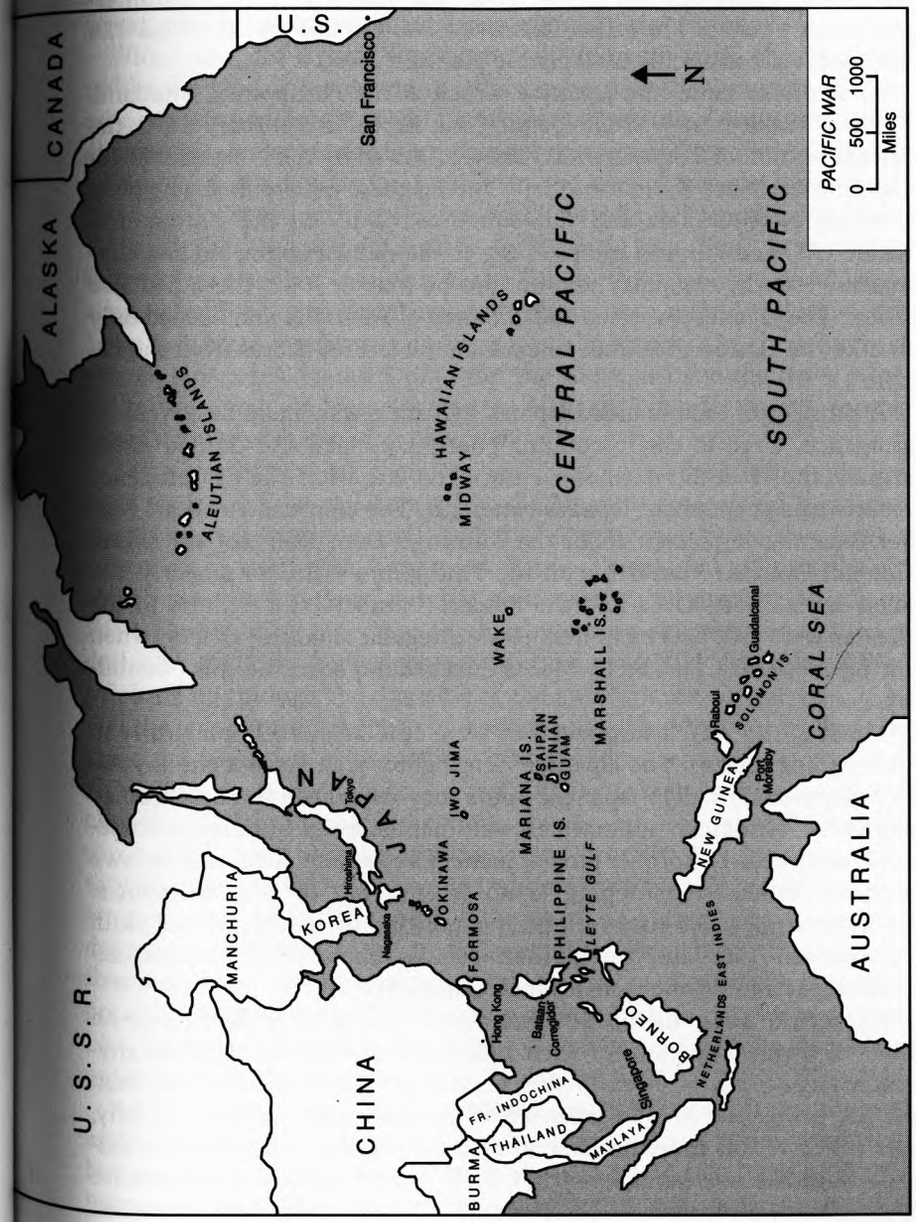
area was greater than expected. The upshot was that Operation Market Garden failed, and as winter approached, the Allied offensives ground to a halt opposite Germany's Siegfried line of defenses.

Hitler now launched his last major offensive in the west. He hoped to repeat the success of 1940 by again attacking in the Ardennes and driving through weak American forces in what was designated—in an incredible intelligence failure, given the experience of 1940—a quiet sector. German armor would then drive to the coast at Antwerp, dividing the Allied armies and defeating them piecemeal. On December 16, 1944, twenty-five German divisions, taking advantage of bad weather that kept Allied planes grounded, attacked. In hard fighting, they dented the American line but could not pierce it, creating only a "bulge." Although the Germans achieved complete tactical surprise, they did not have the strength for a breakthrough. This was not 1940, and the Germans were not facing a weak, inexperienced opponent. When the weather cleared, Allied air power blunted the German advance. American ground forces struck back, including elements of Patton's Third Army, which in a remarkable feat wheeled out of line and drove hard from the east to help beat the Germans back in the Bastogne area. The Battle of the Bulge spent the Wehrmacht's last strength, and Germany lay open to assault. The western Allies crossed the Rhine on March 1, 1945, and met the Russians at the Elbe on April 25, as they poured in from the east. Hitler committed suicide on April 30, and German nazism collapsed with him.

Germany, along with much of continental Europe, lay in ruins; this was the havoc that Hitler had wrought. Believing that in World War I Germany had surrendered while there was still a chance of victory, he preferred total destruction to the repetition of this failure. Thus, a war of brute force destruction was made inevitable, in which Germany's resistance went beyond any logical defense of state interests and provoked national destruction.

In the Wehrmacht, the Allies faced an opponent too skilled to be beaten with the same ease displayed by the panzers in 1939 and 1940. In both east and west, the armies had to be hammered into destruction. A conflict fought to unconditional surrender had brought about such destruction that a disturbing ferocity was provoked on both sides. In the ruins of European cities, we learned of our ability as a species to wreak havoc on each other and on our environment in proportions hitherto unimagined.

In the Pacific, the pattern of war was marked in its early stages by lightning offensives. Japan's conquests were a remarkable feat of plan-



Map 3. The Pacific War

ning and execution. In three months, imperial forces overran territory half the size of the United States. On December 7, 1941, Japanese carrier-based planes attacked the American Pacific fleet at Pearl Harbor, sinking 4 battleships and 3 destroyers and severely damaging numerous other vessels. They also destroyed 160 aircraft and disabled 128 others, for a loss of only 29 Japanese planes.

At the same time, the Japanese struck at the Philippines, Thailand, Malaya, Wake Island, Guam, and Hong Kong. In February 1942 the British bastion of Singapore fell easily, followed by the Netherlands Indies in March and Burma in April. The Japanese also took strong positions in New Guinea and the Solomons. Only in the Philippines, where U.S. and Filipino troops clung to the Bataan peninsula and Corregidor, was the conquest held up. But by May 6, 1942, these had also fallen. The Japanese were on the doorstep of Australia and needed only to take the Hawaiian islands to exclude the United States from the Pacific.

A number of factors aided Japan's lightning war, including Western arrogance. Used to easily quelling poorly equipped and trained Asian armies, the West did not believe until too late what their intelligence reports told them about Japanese strength. The command at Pearl Harbor became complacent about the warnings. Even after the war began, General Douglas MacArthur in the Philippines failed to properly disperse his aircraft. Over half the modern bombers and fighters in the theater were still parked in neat rows, a regular shooting gallery, when the Japanese hit Clark Field. MacArthur had not accepted this possibility.

Much to the West's surprise, they were outclassed technologically in the opening rounds. The Japanese Zero fighter plane outfought any Allied plane, and in 1941 Japanese pilots may have been the best trained anywhere. American submarines were handicapped by inferior torpedoes, and the B-17 bomber proved ineffective against naval targets, two weapons crucial to stopping Japanese invasion of the Philippines. Japanese armies also surprised their opponents by their logistical skill: they moved faster and further than Occidentals believed possible, negotiating terrain Westerners deemed impassable.

Western armies, highly bureaucratized and heavily dependent on lines of communication for their many material needs, required anywhere from eight to twenty-eight service personnel to keep one man on the firing line. In the Japanese army, each man subsisted lightly, and the ratio was more like one to one. Put crudely, their military animal dragged a lot less tail, so they took ground quickly. The Japanese were also helped initially by an ironic flip-flop in Western attitudes.

Never characterized as simply human by their enemy, the Japanese went from being seen as subhuman before December 1941 to being seen as superhuman immediately after. In 1942, American and British Commonwealth troops collapsed before relatively small Japanese forces, which had acquired an almost supernatural status.

Why, then, did Japan's war effort fail? To begin with, the Japanese, unlike the United States and its allies, never saw the war as one for total conquest and domination of its major opponents. Contrary to belief at the time, no Japanese leader seriously considered invading the United States. Japan fought for a place in the sun, alongside Westerners. The best Japanese military minds, such as Admiral Isoroku Yamamoto, knew that in a war of attrition Japan must lose. Their hope was to initially take such a vast area of the Pacific that the price of taking it back would be too daunting and Westerners would acknowledge Japan's right to a sphere of influence in the region. (At their furthest extent, Japanese conquests ran from the Aleutians and the tip of Alaska in the north to New Guinea at Australia's border in the south.) Japan's aim was the sharing of power.

Racially stereotyping their opponents as coarse barbarians not imbued with the finer military spirit, the Japanese underrated their enemies' staying power—especially that of Americans, whom they saw as corrupted by their high standard of living. They failed to grasp the absolute resentment their actions, particularly the surprise attack on Pearl Harbor, had generated in their enemies: unconditional surrender—the eradication of Japanese militarism—would dominate Allied thinking up through the dropping of the atomic bombs.

If the war continued, Japan had some hope of holding out by drawing upon the resources of the regions conquered to refurbish its war machine. But the Allies rebounded too quickly, taking back territory and choking off Japan's maritime trade routes, for this possibility to be made good. Also, through arrogance and brutality the Japanese military alienated other Asian peoples who might have worked with them. Japan was forced to fight a war to the death on chronically inadequate, dwindling resources. Japan in the east, like Germany in the west, at first won a war of width, of breathtaking seizure of territory, that temporarily obscured its inability to win a war of depth. Japan's economy, like Germany's, could not compete in attrition with the combined power of its enemies, particularly the United States.

As the tide changed, the weaknesses in Japanese military thinking and technological applications also became apparent. Often forgotten, but central, is the fact that Japan in the 1930s had tied itself to the albatross of the endless China war. A disproportionate percentage of the

mander in the theater, pushed northwest, severing Japan's transportation network with the resource-rich Netherlands Indies. He then retook the Philippines, restoring America's bruised martial pride and providing bases for a bomber offensive against Japan. Meanwhile, a navy and marine offensive, under Admiral Chester Nimitz, used Hawaii as a staging post to push westward across the central Pacific. Nimitz had two major objectives: the Marianas, linchpin of Japan's supply system in the central Pacific, and the Formosa-China coast, from which bombers could also be launched against the Japanese home islands.

This two-offensive strategy has been criticized as a needless duplication of effort that cost lives and resources best used in other ways: the failure to choose between the two invasion routes reflected a political desire to avoid interservice rivalry between the army and the navy rather than any legitimate military purpose. On the one hand, it can be argued that the central Pacific route was the more direct and that MacArthur's thrust against the well-defended Philippines should have been avoided. On the other hand, it can be said that for Filipino and American morale, the return of MacArthur was indispensable and that the navy would have been better employed in total effort against Japanese commerce rather than in island taking. In the end, both arguments may be colored by hindsight. At the time, the Japanese Empire seemed so strong and its military so effective that assaults from two directions to pin down their resources seemed sensible. And, the strategy worked.

Savage early fighting suggested the felicitous policy of "island hopping." The Japanese expected that they could wear down the Allied will to fight and forge a compromise peace by exacting a huge toll for each island retaken. For example, they thought that Raboul, a bastion of 100,000 Japanese on the northern tip of New Britain Island, stood in the way of MacArthur's advance. The retaking of Raboul would be enormously costly to the Allies. But the Joint Chiefs of Staff realized that, given that Japan had lost command of both sea and air, Raboul could simply be bypassed, leaving the garrison to sit out the war, isolated and starving.

They were right, and this set a pattern for the remainder of the war in the Pacific. By October 1944 MacArthur had leapfrogged his way north into the Philippines. Here he fought the decisive battles of Leyte Gulf, which smashed Japanese resistance in his area. At this point, MacArthur can be legitimately criticized because he became almost obsessed with mopping up Japanese resistance in the Philippines, taking out isolated pockets that unnecessarily cost lives and damaged the

environment. In mid-June 1944, Nimitz's forces struck the Marianas, capturing Tinian, Guam, and Saipan, 1,350 miles from Japan's capital. The ring was closing. By February 1945, the marines were fighting for Iwo Jima, only 750 miles from Tokyo.

However, the Japanese fought with desperate bravery and, after Saipan, with increasing effectiveness. At Saipan and earlier, the Imperial Army tried to contest the initial landings, only to be devastated by enormous American firepower falling on the open beach areas. After Saipan, the Japanese waited inland in carefully prepared defensive positions that were difficult to locate and eradicate. And they fought with desperate courage, often attacking in mass suicide assaults rather than surrendering. The result can be seen at Iwo Jima: although only eight square miles of land, it cost the marines 27,000 casualties to take. On Okinawa, attacked April 1, nearly all the 120,000-man Japanese garrison perished after inflicting 48,000 U.S. casualties.

At the same time, kamikaze attacks were being launched against Allied warships supporting the landings. These were suicide assaults flown by young and barely trained pilots whose crude planes had only enough fuel for a one-way trip. Due to the successful Allied attacks on Japan's industries and shipping lanes, competitive fighter aircraft could no longer be produced. Nor was there enough fuel to fully train pilots. Therefore, adolescents tried to ram crude machines, equipped with no navigational aids but crammed with explosives, into enemy ships. This was a desperation strategy and was not approved by the growing peace party in Japan.

Most kamikazes had no chance of getting through the fighter and flak screen. Nevertheless, these attacks were terrifying to the men who faced them and suggested to the Allied high command a fanaticism that was utterly irrational. In a further instance, the battleship *Yamato*, without air cover and running on soybean oil, was sent out in April 1945 to attack the American fleet. It had no chance and was sunk with huge loss of life. These kamikaze attacks, along with the bitter Japanese island defenses, colored Allied thinking about what would be needed to force Japan to surrender.

Like Germany, Japan was subjected to intense bomber attacks. Starting in June 1944, new B-29 Superfortresses, with the highest bomb load of any Allied plane, began to hit Japanese industrial targets. Then, in early 1945, General Curtis Le May, heading the Twenty-first Bomber Command, initiated the incendiary bombing of cities, whose residential districts of wood and paper houses were especially vulnerable to fire. On March 9, three hundred B-29s hit Tokyo with napalm,

creating an inferno of 1,800° Fahrenheit. Sixteen square miles of the city and 85,000 people were destroyed. Fire raids followed on Nagoya, Osaka, Kobe, Yokohama, and other cities, with similarly devastating results. In all, sixty-one cities were bombed, destroying 40 percent of their surface area and causing 672,000 casualties.

Given the stupendous Japanese losses, we may ask why the government did not surrender. For one thing, some leaders, particularly in the military, still felt that the home islands could be defended. And the Code of Bushido dictated a sacrifice that went beyond the rational interest of the state or the people. Also, the peace party lacked effective leadership, especially as the emperor, though increasingly convinced of the need for peace, took a passive role. The peace cause was not helped by the Allied call for unconditional surrender, first promulgated at the 1943 Casablanca Conference. Japanese leaders feared this would mean the removal of the emperor, who played a quasi-religious role in Japanese culture, symbolizing the soul of the nation. His survival was seen as key to retaining political and psychological stability in the stricken nation. The government did put out tentative peace feelers through a third party, the Soviet Union, which was not yet in the Pacific war. The Western Allies knew about this through Magic intelligence intercepts, but they doubted the seriousness of Japanese intentions and feared to make a direct response in case this should be interpreted as indecisiveness, encouraging the fanatics in Japan.

In this atmosphere of stalemate and mounting destruction, the decision was taken by President Harry Truman (FDR had died on April 12) to use the two atomic bombs in existence on Japanese cities. The first was used on Hiroshima on August 6, and the second on Nagasaki on August 9, killing roughly 135,000 people and forcing the surrender of Japan. At first, most Americans approved of the bombs being dropped, particularly as the problem of radiation was then not widely understood. But in the next five years, a further 130,000 people died of the bombs' effects. And in 1946, a major American journalist, John Hersey, graphically described in his book *Hiroshima* the suffering caused by the bombs. With humanity now living under the shadow of nuclear war, a debate was sparked, which has not ended, over whether the bombs were necessary.

The arguments surrounding the use of the bomb are too complicated to be summarized here, but pivotal is the question whether Japan would have surrendered without either the use of the bombs or an invasion of the home islands, scheduled to begin in November. Should invasion have been necessary, Japanese defensive skills and determination might have cost a million American casualties and enormous dev-

astation to Japan. Some military men believed that Japan would collapse without an invasion, because attacks on shipping and industry had devastated the country's defensive capacity. Others disagreed. But even if an invasion were avoided, more Allied lives would be lost in the weeks of bombing and sea warfare that still remained. In the climate of 1945, an environment of destruction and escalating hatred, it is simply impossible to expect that Allied leaders would have considered sacrificing Allied servicemen to save Japanese civilians. Moreover, as not using atomic bombs would have meant continued incendiary attacks, concern over Japanese civilians seemed moot.

Could the bomb have been demonstrated without destroying a city? Some of the scientists who worked on the weapons wanted this. The risk here was that, if the test bomb failed to work properly, which was possible, its impact would be squandered. Then, as the Allies had only two, the second would have to be dropped on a city and, if it failed to provoke surrender, there was no follow-up possible. So a demonstration was ruled out. This is understandable.

What is more questionable is that only three days were allowed to elapse between the two atomic attacks. Two days after Hiroshima, Russia declared war on Japan, sealing its fate. The peace party was gaining ground, particularly as most senior army officers now accepted the inevitability of defeat. Nothing would have been lost to the Allies by waiting a further few days and perhaps guaranteeing the position of the emperor. Ironically, the latter was done—after Nagasaki and the Japanese surrender. The truth is, concern over civilian deaths and the initiation of the nuclear age have been more apparent since the war than they were at the time. Humanity had been forced to witness enormous destruction all through World War II. By 1945 the killing had reached such enormous proportions that the bombing of one more city did not have the aspect of moral horror that it might have now. In such a time of death, the unimaginable had become the acceptable.

In the Pacific, Japan's grim defense of the islands necessitated the same brute force that Hitler's refusal to yield ground produced in Europe. The Japanese were skilled defensive fighters, making careful use of the terrain to create positions that were expensive to take and difficult to destroy. Inevitably, the Americans responded with firepower: there was plenty of ammunition, and it saved lives. As in Europe, every foot of ground in the path of advancing forces was pulverized. It is estimated that 1,589 artillery rounds were fired to kill each Japanese soldier. In the final fight with the battleship *Yamato*, planes from one American carrier alone fired 1.5 million rounds of small-caliber ammunition from their machine guns.

Japanese suicidal fanaticism produced a corresponding insensitivity to killing on the part of Allied soldiers, who butchered their opponents in staggering quantities—over 100,000 on Okinawa, alone. The ecology of some islands was so badly damaged that it had not recovered twenty years later.

It was necessary for world peace and the future of democracy that the Axis be overcome. This should not, however, lead us to glamorize modern technological warfare, which has an almost unlimited capacity for human and environmental destruction, because of the sheer number and effectiveness of the weapons we have created. For the men who fought in the Pacific or in Italy, for the civilians who suffered in the blitzing by one side or the other, World War II was a brutalizing experience. Anonymous mass destruction was the dominant characteristic. As David Divine, a historian of the air war, commented: "To accept that this was a war of sophisticated weaponry has become a convention in the West, but it was in reality a war of desperate attrition, and victory in the end hinged upon human death" (Divine, 263).