THE BOMBING OF GERMANY 1940-1945 EXHIBITION

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THE ANGLO-AMERICAN BOMBING OF GERMANY

The Allied bombing of Germany began on the night of 11/12 May 1940 with an attack on Mönchengladbach and ended on 2/3 May with an attack on Kiel. The bombing was moderate in the first eighteen months of war but from summer 1942 became a continuous and increasingly heavy bombardment of German industrial cities, first along the northern German coast, in north-west Germany, and the Ruhr-Rhineland, then across the whole of the Greater German area. Attacks were carried out from bases in eastern England by RAF Bomber Command throughout the war. The US Eighth Air Force was based in England from spring 1942 but did not conduct its first attack on Germany until January 1943. Once bases had been secured in the Mediterranean theatre, heavy bombing of southern Germany and Austria was also conducted by the US Fifteenth Air Force from southern Italy, occasionally supported by medium bombers of the RAF. At the same time Anglo-American attacks were carried out against targets in occupied Europe deemed to be important to the German war effort.

Throughout the war the Ministry of Information and the Air Ministry collaborated to produce accounts of the bombing war. Here are two different versions of the Air Ministry account of Bomber Command in the first three years of the war. The booklets insisted that the RAF was bombing only military targets even after the switch to targeting city centres.
The phases of bombing

Although bombing of Germany was continuous from May 1940, there were distinct phases in its purposes, intensity and scale. For the first eighteen months Bomber Command mounted limited attacks at night, seldom with more than 150 aircraft, often directed at two or three target cities at the same time. The attacks were made with medium bombers carrying at first mainly high explosive bombs. There were no electronic navigation aids and finding the target and hitting it with any accuracy was beyond the capability of the force. In the first phase particular industrial target systems were attacked as well as the general area of the Ruhr-Rhineland, but limited range meant that most attacks were mounted against the north German coastal ports and a cluster of iron, steel and armaments cities in Rhineland-Westphalia.

An RAF navigator's log book recording his training in navigation by the stars. Accurate navigation was a persistent problem for RAF Bomber Command, even when better radar or electronic guidance systems had been introduced.

In August 1941 a report was prepared for Churchill by the civil servant David Butt which showed that fewer than one-third of aircraft despatched actually got within five miles of the target. The Butt Report accelerated the move to a second phase of night bombing in which the morale of the German workforce was to be attacked by destroying residential housing, amenities and services in order to increase levels of absenteeism from German firms and to undermine German production. This strategy was finally elaborated in a directive of 14 February 1942 and came fully into operation over the following months when Air Marshal Arthur Harris was made commander-in-chief of Bomber Command. The diversion of bombers to help in the Atlantic battle, with attacks on submarine pens, and the need to send bombers to the Mediterranean and Far East meant that Harris had only one-third of the bombers he had expected to have for the German offensive. The results during 1942 were from the RAF view better than in 1941, but accuracy was still poor and the weight of bombs
too small to do serious damage or to undermine production. Harris compensated by increasing incendiary bombs to one-half or two-thirds of the bomb load so that large-scale fires could be started. Electronic navigation aids and the introduction of the four-engine heavy bomber (Lancasters, Halifaxes and Stirlings) slowly improved the capability of the force by the end of 1942.

The third phase coincided with the arrival of the US Eighth Air Force in Britain from the spring of 1942 onwards. Commanded by General Carl Spaatz until the end of the year, then by General Ira Eaker, the Eighth made very slow progress in developing its offensive capability and most of the first year, from the first raid on the European continent on 17 August 1942, was spent attacking targets in France and the Netherlands. The two bomber forces realized that it was necessary to justify the large resources devoted to bombing by developing a clear strategic plan. At the Casablanca Conference in January 1943 the two sides agreed to a bombing campaign round-the-clock, Bomber Command bombing by night, the Eighth Air Force by day. The Allied leaders treated bombing as an adjunct to ground strategy and ordered the bomber forces in the Casablanca Directive to undermine the morale and power to resist of the German enemy as a prelude to launching a major amphibious operation in north-west Europe. Bomber Command continued its area bombing campaign against a list of industrial cities, while the Eighth was directed to attack a range of vital industries, communications and the German Air Force itself. In June these plans were elaborated to form Operation Pointblank, which signalled the real onset of round-the-clock bombing.

The final phase came after the Normandy campaign in June/July 1944. Heavy bombers had been diverted to provide pre-invasion bombing and to assist the ground offensive. In September 1944 they were released from their tactical role and were able once again to go over to a heavy offensive against all remaining targets in Germany. With the help of Allied long-range fighters (principally the P-51 Mustang) the German air force was overwhelmed in German air space. The final campaigns, Thunderclap and Hurricane I and II, proved devastating as one city after another was subjected to the largest and deadliest air raids of the war, including the firebombing of Dresden on 13/14 February 1945 in which an estimated 25,000 people died.

### Allied Bomb Tonnage on Germany and German-Occupied Europe 1940-1945

<table>
<thead>
<tr>
<th>Year</th>
<th>RAF</th>
<th>USA Army Air Force</th>
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<tbody>
<tr>
<td>1940</td>
<td>13,033</td>
<td>-</td>
</tr>
<tr>
<td>1941</td>
<td>30,704</td>
<td>-</td>
</tr>
<tr>
<td>1942</td>
<td>45,561</td>
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<td>1943</td>
<td>157,457</td>
<td>55,987</td>
</tr>
<tr>
<td>1944</td>
<td>525,518</td>
<td>378,587</td>
</tr>
<tr>
<td>1945</td>
<td>181,740</td>
<td>188,573</td>
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Strategic planning

The long bombing offensive was designed to support a very wide range of strategies at different points in the war. The principal purpose was to reduce the German capacity and willingness to wage war, but how that could best be achieved by bombing was the subject of endless disagreements and reviews. Although the emphasis in the directives changed regularly over the course of the war, there were four main purposes to Allied bombing:

- **Bombing to weaken morale:** From 1940 onwards the RAF aimed to undermine the war-willingness of the German population by bombing. From July 1941 the morale of the industrial workers in particular was a definite objective. Although the US Army Air Force leaders did not believe morale was an effective target, morale remained a stated objective under the terms of the Pointblank Directive for the Combined Bomber Offensive issued in June 1943.

- **Bombing to produce industrial decline:** The chief aim at the start of the war was to undermine Germany’s war economy by attacking selective target systems. The most significant were oil, the aircraft industry, the shipbuilding and submarine industry, and the chemical industry. The failure to hit precise targets shifted the RAF focus to the area bombing of working-class districts, which was begun in summer 1941. The aim was to reduce the productivity of many factories in a city by destroying the housing and amenities of workers and killing or maiming them. The US Army Air Forces insisted on attacking key industrial target systems and chose oil, the aircraft industry, ball-bearing, chemicals and, later, transportation as the key areas.

- **Bombing to undermine military capability:** There were two ways in which bombing was expected to affect German military capability in addition to the damage to the war economy. The first was to bring the German Air Force to battle and to defeat it over German air space in order to gain what was called ‘command of the air’. The second was to compel Germany to keep large resources of civil defence and anti-aircraft personnel and equipment on the home front, denying those resources to the fighting fronts in Russia, the Mediterranean and, from 1944, in France and so weakening German military resistance.

- **Bombing for political purposes:** Some bombing operations were undertaken in order to satisfy political purposes. The bombing of Berlin in January 1943, for example, was undertaken against the wishes of the Commander-in-Chief, Air Marshal Harris, but was insisted on by Churchill to satisfy Stalin’s demands for air action against the German capital. The bombing of Dresden in February 1945 also had some political purpose to it in demonstrating the West’s willingness to help the Red Army speed up its advance into Germany directly.
Two Ways to Bomb

There has been much argument since the end of the war about the two different approaches to bombing adopted by the British and American air forces. The RAF deliberately adopted a policy of area bombing of industrial cities using large numbers of incendiaries against predominantly residential districts because it was argued, on the basis of German practice during the Blitz, that this achieved higher levels of destruction and industrial dislocation. This strategy was not pursued continuously – there were diversions to help with the Battle of the Atlantic and with the invasion of Normandy – but it was carried out until almost the end of the war in 1945.

American intentions were to bomb precise targets, achieving by day a high degree of precision over selected industrial and communications objectives. In practice this degree of accuracy could not be achieved because of strong anti-aircraft defences and relatively poor navigation, but principally because of cloud and industrial smog. Major industrial targets were hit and in many cases destroyed, but US bombing also hit extensive areas of the cities and rural areas attacked, causing high loss of civilian life. In 1944 and 1945 around two-thirds of American bombing was ‘blind bombing’ through cloud cover. As a result there was less difference in the effects on the ground, despite the contrast in intentions.
'The Big Punch' was one of many comic-book presentations of the war published in Britain in the 1950s. The story-line tells of a scientific 'boffin' determined to try out his new invention to destroy a German factory. The comic continued the post-war myth that the British only bombed military targets.

GERMANY PREPARES FOR AIR WAR

Germany was in an unusual situation between the wars. Unable to produce or operate military aircraft under the terms of the Treaty of Versailles, there developed a lively interest in all things to do with the air in the 1920s. Germany pioneered airline travel and thousands of young Germans trained in gliders or joined air modeling clubs. From the late 1920s the German Army began illegal sponsoring of military aircraft design and secret air training at airfields in the Soviet Union under the terms of the Treaty of Berlin, signed in 1926 between the two states. Germany had a high level of 'airmindedness' and a popular realization that without adequate air force protection and no effective civil defence, Germany was vulnerable to air attack by potential enemy states. When Adolf Hitler became chancellor in 1933, air defence became a top priority. Secret air rearmament began almost at once under the new Air Minister, Hermann Göring, and extensive anti-aircraft and civil defence services were activated. By 1939 these were among the most extensive anywhere in Europe.
The German air defences lit up the sky over German cities during the raids. German towns were heavily defended but anti-aircraft fire was difficult to direct even with the introduction of radar-guided firing in 1942.

The Birth of German Civil Defence

The fundamental law governing German passive air defence was the Air Protection Law [Luftschutzgesetz] of 26 June 1935. The law was revised and added to ten times between 1935 and 1943, until it was decided to issue a new law to simplify and codify all the many amendments. Unlike the British system, the German one was divided between a military and civilian component. The air-raid warning system and the local structure of air defence was responsible to the Air Ministry and the air force commander-in-chief, General G?ring, who was appointed to high command in March 1935. Air raid precautions were the responsibility of the local Air Force Regions [Luftgaue], whose commanders appointed an Air Protection Leader in each locality. This was in most cases a senior local policeman, assisted by a special air defence police [Luftschutzpolizei]. Their task was to prepare for air attack and to undertake all the necessary emergency measures once an attack had happened. A separate air warning service [Luftwarndienst] was run by the air force as a national organization with branches across the country. In the event of war they all came under direct military authority.
A man being rescued from a collapsed building by Air Police and Civil Defence workers.

In Germany much of the responsibility for local ARP rested with the police forces and the local police president would normally be the controller of the civil defence system in his city or town.

The civilian branch of civil defence was organized by the Reich Air Protection League [Reichsluftschutzbund =RLB]. Set up on 29 April 1933, it was run as a private organization until its incorporation as a public body in May 1940. Membership reached 15 million by the outbreak of war across the whole of Germany, both men and women. Among the office holders in the organization there were 280,000 women out of a total of 820,000. The RLB was responsible for organizing what came to be known in Germany as ‘self-protection’ [Selbstschutz], defined in the law of 4 May 1937, which formally established the civil defence structure. ‘Self-protection’ involved training in first-aid, anti-gas procedures, air-raid discipline and, above all, how to create a ‘bomb-safe room’. Every house and apartment block in an endangered city had to have a designated safe room completed to standard specifications of ceiling strength, airflow and escape routes. The officials of the RLB were usually the ones chosen on a street or in a housing block to be the local air-raid warden [Luftschutzwart] and they were responsible in a raid for ensuring that everyone in their small unit was accounted for and sheltering. The formal relationship between the military air protection organization and the civilian RLB was poorly defined before 1939 and there was room for considerable overlap or duplication of effort. The problem faced by the RLB was funding, since it was not a state institution and relied on the goodwill of the millions of householders who paid their dues, and the millions of others who had to be persuaded, often at their own expense, to convert a room for the threat of a future air raid.
Preparing for War

There existed a high level of awareness of air-raid duties in Germany in the years before the outbreak of war. The concept of ‘self-protection’ served a useful political purpose. For the dictatorship it helped to increase voluntary participation and spread the costs of effective air-raid protection, but above all it matched the ideal of the ‘People’s Community’ in which members all pulled together in the common effort to protect the racial whole. Self-protection was a test of community solidarity and belonging and reflected the sense of responsibility that all good Germans were supposed to display in the face of a common danger.

In reality there was often a gap between what the regime hoped for and the actual pace of air-raid preparations. The legislation on issues to do with the blackout, or bomb-safe rooms, or the compulsion to shelter all carried a punishment of 150 mark fine or a spell in prison for those who willfully failed in their air-raid duties. Coercion was sometimes necessary to get property-owners to agree to build a bomb-safe room, or to pool basement provision by making small trapdoors in the partitions between the underground compartments. Blackout practices were held from the mid-1930s onwards, but the absence of real threat provoked evidence of non-compliance or careless and casual observance. On the question of air-raid shelters there was some dispute. The country was divided into three air protection zones, I, II and III. In the first the local Air Region could approve state subsidy for building larger public shelters, designed for areas where there was no adequate cellar or basement provision, or for those expected to be caught out in the open or at work during a raid. In Zones II and III there was no subsidy and local authorities were expected, if they wanted them, to fund communal air-raid shelters on their own behalf. Since many were still recovering from the effects of the economic depression and had limited means of expanding tax revenues, shelters could not be built. The arguments about funding went on into the war until the spread of British bombing finally forced the government in 1941 to concede subsidies for all three zones.

The system of Zones indicated confidence on the part of the Air Force that enemy bombers would not be able to reach into the central areas of the Reich; the more vulnerable industrial districts were given a heavy shield of anti-aircraft guns during the late 1930s, making German cities more protected than any other in the first years of the conflict after 1939. It was partly for this reason that there were few plans for mass evacuations before 1939. Because of the extensive availability of bomb-safe rooms and shelters it was assumed that much of the population would remain secure from the consequences of raiding. In schools throughout Germany little progress had been made in constructing shelters even by the outbreak of war, while the decision to evacuate whole school classrooms – done in Britain in September 1939 – was not taken until 1943, and even then, on Hitler’s insistence, it had to be with the approval of parents.

In one respect the civil defence preparations differed clearly from those in Britain and France. The provision of post-raid welfare, support and assistance was expected to be undertaken by the National Socialist Welfare organization (NSV). Like the RLB this was a mass organization with over seven million volunteers by the war, many of them women. The NSV undertook to supply rest centres, spare clothing, emergency meals and temporary housing. Because it was linked to the National Socialist Party its functions in wartime were expected to reflect the philanthropy of the Party and to demonstrate how party officials and associate members protected the interests of the community. In this as in the work of the RLB, civil defence and welfare were deemed capable of
providing not only genuine assistance but also of tying ordinary people to the values and practices of the movement.

'Die Sirene' was the magazine of the German Air Protection League (RLB). Here two young female wardens pose with their gas mask cases. By 1940 200,000 women worked for the RLB as civil defence helpers.

The Coming of War

The onset of war in September 1939 did not have the same impact on civil defence as it did in Britain and France. The blackout regulations, defined in the law of 25 May 1939, were put into full operation on the outbreak of war but required numerous small additions to make the sudden descent into complete darkness manageable. The responsibilities of the civilian self-protection units, recruited largely (though not exclusively) from RLB members, were strengthened in a decree of 2 February 1940 in an effort to get people to understand fully what the terms of ‘self-protection’ were. The RLB also organized so called ‘wider self-protection’, the establishment of dedicated warden and fire-watching units for offices and commercial buildings which were usually unoccupied at night, and which became important only after heavy raiding began in 1942. Limited voluntary evacuation took place from the start of the war but large-scale evacuation had to be approved directly by Göring, who preferred people to stay where they were rather than burden the transport and regional feeding systems with large movements of population.

The low level of activity reflected the expected threat. Bombing did not become a serious issue for the German urban population until 1942. In Britain over 23,000 died in the last four months of 1940, but Germany lost only 975 dead from RAF bombing for the whole period from May to December.
1940. Early RAF bombing was small-scale and because of its exceptional inaccuracy, hard to predict or to evaluate. Air raid warnings had to be given to rural areas in north-west Germany because so many bombs fell on open land. The incidence of raiding did force millions of Germans to shelter, often for long night-time hours, but it soon became clear that this was unacceptable for maintaining productivity and a system of raid-watching and local warning helped to keep businesses running even while air-raid alerts were sounding. From two warning signals – air raid and all clear – a system of five signals was elaborated, sometimes given by an air-raid siren, sometimes by a number of shots from an anti-aircraft gun.

There is no doubt that hundreds of thousands of Germans were braced in 1940 for work in some aspect of air-raid protection. The precise number of active civilians can only be estimated but was substantially smaller than the paid-up members of the RLB. The organization had 73,000 officials and 820,000 officeholders (wardens etc.). But because so many civil defence workers were part-time, or indeed only activated when a raid was occurring, a formal civil defence body, distinct from the uniformed air police and air-raid defence forces, remained an amorphous organization recognizable from their helmets and armbands, and sometimes not even that. They were supposed to see themselves as ‘race comrades’ with civil defence duties.

One of the most important commodities in the aftermath of a raid was clean drinking water. The authorities made great efforts to ensure that water supplies were not contaminated by setting up wells or standpipes in the street for local inhabitants to use, as displayed in these two pictures.
THE NATIONAL SOCIALIST REGIME AND BOMBING

Because of the nature of the German dictatorship, the role of the state in the bombing war remained ambiguous. The German Air Force had a large part to play in air defence and protection, both through the active operation of anti-aircraft artillery, searchlights and aircraft and through passive air-raid protection mobilized by the Air Regions and the local Air Protection Leaders. Alongside the Air Force were organizations linked directly to the National Socialist Party – the welfare organization, the local offices of the Propaganda Ministry, the regional *Gau* structure with its subordinate layers of party administration. In between at national, regional and municipal levels, sat the formal state apparatus of ministries, provincial governments and local city councils, many of which contained National Socialist Party members. The effort to cope with the effects of massive bombing in the last years of the war was divided between these different elements of the public sphere, a situation that led to many arguments about competency and finally brought Hitler characteristically to make *ad hoc* appointments of senior subordinates to try to cope with the accelerating social and psychological problems caused by the bombing campaign.
A great store of bedding outside the Hotel Columbus in Kassel after the firestorm there. Although the Allied bombers hoped that bombing might provoke popular protest against the Hitler regime, the key priority for bomb victims was food and somewhere to sleep.

**Party, State and Catastrophe**

It was not until the bombing became a serious menace in 1942 that the tensions between state, military and party became evident. All three had an interest in making sure that popular will for war and the social and welfare requirements of the population could be maintained successfully. 'The chief aim of all measures,' according to an Air Ministry summary of the 'Principles of Air Protection', published in February 1942, 'must be to bring community and economic life back into operation as quickly as possible after a raid.' But for the Party the issue of morale and popular support for the regime was if anything even more important. The heavier air attacks in the spring of 1942, and particularly the attack on Rostock in April, were designated for the first time 'Catastrophe-Attacks' because of the scale of the loss and destruction. The sense that these heavy attacks might strike with the force of a major natural disaster increased pressure on the regime to find a way to ensure the surviving will and capacity for war.
A group of senior police, civil defence and army officers watching a decontamination squad spreading quicklime on the bodies of bomb victims. The danger of infection increased with the large number of bodies buried in the rubble or close to the damaged water system.

The consequence of the first heavy raids was to shift local responsibility more towards the Party and Party representatives. Immediately after the bombing of Rostock, Hitler appointed Joseph Goebbels, Minister for Propaganda and Popular Enlightenment (but also Gauleiter of Berlin), as temporarily responsible in moments of extreme emergency for local post-raid organization until something like normal state control could be re-established. The following month, on 7 May 1942, a set of guidelines was drawn up by Göring, Goebbels and the Interior Minister, Wilhelm Frick, to try to allocate different responsibilities for air-raid protection. Although purely air-defence measures belonged to the responsibility of the air force, all civil activities for restoring services and administration and helping the bombed population became the task of the Reich Defence Commissar (RVK). These were Party appointments, first made in the 1930s, and in most cases held by the regional party leader (Gauleiter). The effect of the decision to make the RVKs responsible for civil defence shifted responsibility away from the normal administration to the Party regions. Statistics on air attack, welfare and repair began to be submitted on the basis of Gau figures rather than the normative administrative unit. This began the gradual subversion of the formal state apparatus in favour of a Party structure which saw its role enhanced by identification with the bombed populations.
Glaziers at work outside a building in Hamburg after the raids. The local authorities were instructed by the Ministry of the Interior and the Economic Ministry to focus only on simple repairs – replacing windows and doors and repairs to the roof and ceiling.

The May 1942 agreement also brought into sharp relief the issue of morale. The new guidelines reiterated a point that Goebbels had already got legally sanctioned some time before: only the Party and its local representatives could engage in the moral leadership and guidance of the people. From this point on Goebbels began to encroach increasingly on areas of air-raid protection and post-raid welfare on the grounds that this was vital for the survival of the war effort and the community’s commitment to the Party cause. In December 1942 Göring agreed that the local RVK/ Gauleiter and a special ‘Party Regional Emergency Staff’ bore responsibility for all aspects of welfare, reconstruction and post-raid revival. Although local state officials sometimes took a key role in post-raid reconstruction, the balance fell heavily in favour of the Party. In early 1943 Goebbels was appointed to head an Interministerial Committee for Air-Raid Damage, and on 21 December that year Hitler set up a ‘Reich Inspectorate for Carrying Out Civil Air-War Measures’, with the Propaganda Minister at its head. It was now Goebbels’ responsibility, as Hitler’s plenipotentiary, to co-ordinate all measures to combat the effects of bombing, a post that he held down to his suicide in May 1945.
An image of the firestorm in Admiralitätsstrasse in Hamburg at its height on the night of 27 July 1943. The fire was driven by hurricane-force winds drawn in by the rapid rise of the hot air of the city. Everything in the path of the fire was completely incinerated.

The arguments between the different elements of the military-state-Party apparatus were resolved in favour of the Party as the key player in post-raid activity. At the same time the system of self-help was strengthened to supply a layer between the official apparatus and the wider public. The 'Extended Self-Protection' became even more important as incendiary bombing increased. A corps of observers was set up posted on the outskirts of cities to give warning of approaching aircraft. Businesses co-operated to set up 'Works Protection' and every commercial or industrial premises had to have its own self-protection scheme. On 15 October 1942 and again in a decree on 12 April 1943, assistance with air-raid protection and post-raid recovery was made obligatory for all German citizens, except for the disabled, ill or very old. Every designated householder had to supply a genuine reason in writing to the local warden if for any reason he or she was unable to guard their house each night. Refusal or failure brought a fine or imprisonment.
A familiar scene in Germany by the end of the war. Everywhere people tried to rescue their belongings, and particularly bedding. The local authorities organized salvage schemes and provided secure areas for the bombed-out to store their goods.

The effort to extend and strengthen civil defence work during 1943 and 1944 worked well in situations which had become familiar. In Hamburg the death of 37,000 people in a firestorm on the night of 27/28 July 1943 was a catastrophe unparalleled in the European air war. Order did not break down completely but the regime feared for the stability of the population. More than 700,000 out of the 1.7 million in the city left; services could not be restored quickly and the effects of rumours on the population in areas where the Hamburg refugees arrived fuelled a rising public anxiety. In fact the effort to provide welfare, to draft in manpower (some of its military, some of it camp labour) and to ensure that clean water and food supplies could be got quickly to the shattered people of Hamburg avoided the collapse of the city. Mobile columns of emergency workers and artisans, mutual-aid structures for bringing in fire, building and medical personnel from distant cities and frantic efforts by the regime to make sure that the goods and emergency housing were supplied in the right place at the right time were designed, as in the Blitz on Britain, to strengthen popular links with the regime despite the nature of the horrors brought by mass bombing. Consistent with the racial priorities of the regime, the authorities also distributed to the bombed out confiscated Jewish apartments, clothing and furnishings.
A chain of women rescue tins of food from hand-to-hand after a bombing raid. Growing
difficulty in getting adequate food into bombed areas placed a premium on rescuing supplies.
Despite the growing difficulties, the regime succeeded in maintaining the limited diet and
calorie level until almost the end of the war.

Protecting Industry and Workers

Although much of the damage from both area and precision bombing was random in its effects,
industrial cities and suburbs were key targets for both British and American bombing. As such efforts
had to be made to protect industry and industrial workers as far as possible from the effects of
raiding. Industry benefited from the blackout measures, from artificially produced chemical smoke,
from camouflage and from blast walls built around machinery. Smoke was a major source of
protection from precision attacks and by 1945 there were 50,000 men organized in 100 generator
companies responsible for masking what was left of German industry.
Salvaged bricks could be reused very quickly. Destroyed buildings yielded millions of tons of new materials which could be recycled to build emergency buildings for the homeless populations.

Many industrial premises were damaged and a great deal of working-class housing, often close to the factory grounds, was rendered uninhabitable. The state and Party authorities responded in a number of ways. Before 1939 industry had been organized into separate economic groups centred on Berlin and these groups were now made responsible for setting up a regional organization for industrial repair and assistance which operated a system of mutual aid between areas. Repair gangs were able to solve a great many small issues until the heavy bombing of 1944 when the level of destruction reached an unprecedented scale. From the summer of 1944 between 400 and 600 industrial plants were destroyed or badly damaged every month. From the autumn of 1943, after the Hamburg bombing, the Armaments Minister, Albert Speer, was given responsibility by Hitler to declare an emergency ‘Damage Area’ in places where the existing mechanisms could not cope. Three headquarters were set up in Berlin, Hamburg and Stuttgart to co-ordinate the activity of the emergency organization, which relied on mobile columns of workers, equipment and machinery to try to restart production quickly.
A fairytale house is reconstructed in Hamburg out of ruined materials. All over Germany people improvised an adequate shelter in any way they could. Hundreds of thousands still lived in cellars and basements years after the end of the war.

The other way to cope with the increased damage was dispersal, either to safer and smaller premises or to move German industry underground into caves, tunnels, mines and large basements. Dispersal gathered pace in 1942, particularly in aircraft and engine production, which could take advantage of numerous small engineering and assembly firms in smaller German towns. By 1944 around two-thirds of armaments dispersal capacity was supplied to these two branches. The underground programme had been explored earlier, even before the war, but rejected because of its expense. In 1943 Hitler himself insisted that this was the only way to make industry and oil production bomb-proof and a massive programme was undertaken to prepare over 93 million square feet of underground space. In the end only 13.3 million was completed and only a fraction of that occupied and used. Nevertheless the effort to disperse production, even into the most unlikely setting in forests or farm buildings, kept production going at a high rate right through to the autumn of 1944, when damage to transport became difficult any longer to master.
Workers prepare to inject explosive into a ruined building prior to blowing it up. A great many constructions had to be knocked down to avoid a hazard to passers-by.

The effort to repair or disperse industry also involved an effort to keep workers productive despite the loss of housing and amenity and the danger of death. Once it was realized that damage to housing was often superficial, orders were drawn up to ensure that first aid repairs could be undertaken quickly to get light or medium-damaged housing back into residential use. But shortages of labour and materials made it difficult to repair housing quickly and during 1943 the scale of housing destruction, with 268,000 residential units completely destroyed and a further 2.2 million damaged swamped the repair facilities. Special efforts were made to supply additional food and supplies for the local workforce, but over the course of the last part of the war some 7 million POWs, foreign forced workers and concentration camp prisoners supplemented the native workforce, living in crude and cheaply-produced camps and barracks. Among the German workforce absenteeism rates rose sharply in 1944 in response to bombing and problems of family life, illness and nervous breakdown caused by the effects of constant raiding. In 1944 an average of 17.3 per cent of working hours were lost in the main armaments firms but in some regions firms recorded losses of over 25 per cent.
Italian POWs break bricks into smaller rubble for road building and other uses. Over 600,000 Italians were sent to Germany after Italy surrendered to the Allies in September 1943. They were used in industry and agriculture and as compulsory labour in post-raid cities but resented their treatment by their former ally.

Eastern workers share in the task of recycling the bricks from the ruins of Hamburg. Young women were taken from Ukraine, Poland and Belarus to work in German industry and on the farms. Poor though their conditions were, they were often better than the prospects for food and welfare in the battle zones in the East.
Evacuation and Welfare

As the bombing worsened, so the state took on more responsibility for moving the urban population away from the most heavily bombed regions. The evacuation involved not only children – although the German organization was run by the Hitler Youth – but the movement of mothers and other vulnerable adults and, eventually, workers moved to where their factories had gone. Decisions on evacuation were made at first by Göring, usually in discussion with Hitler, but responsibility was transferred to Goebbels in January 1944. The system was based not on provincial or town administration but on the Party Gaue; these regions made arrangements between the evacuating and the receiving Gaue to make sure that there were enough homes to accommodate them in the reception areas and to organize the distribution of emergency rations and transferred ration cards. This was a long and difficult process, which provoked a good deal of popular grumbling at endless queuing and restrictions. It was also made worse by the large number of Germans who chose to abandon the cities on their own initiative, without proper organization. By the autumn of 1943, after Hamburg, there were 1.7 million planned evacuees, but 977,000 'self-evacuated'. During 1944 the evacuation became a flood, so much so that Heinrich Himmler, head of the SS and now Minister of the Interior, issued a communiqué in February 1944 on evacuation to make it clear that 'No German city will be given up!'. In January 1945 there were 8.9 million evacuees, 7.1 million sent under state schemes, a vast transfer of population with all the problems entailed in feeding, clothing and schooling them.

Two young German children take advantage of the ruins to create their own playground. Many children were evacuated under the Child Evacuation Scheme, but parents had the choice to keep them in the city if they wanted to. Only in the last nine months of the war, when evacuation reached almost nine million, were most children moved to safety.
For all the German population by 1944 conditions in the bombed areas were difficult to tolerate. Food supplies were adequate but the problem was distributing them to where they were needed. For many Germans the hungry post-war years, when parts of Germany experienced famine conditions, began in the winter of 1944-5. The Party nevertheless made every effort in the last years through the provision of emergency supplies, food and shelter and through ceaseless propaganda about sacrifice and community, mixed with arbitrary punishment and terror, to ensure that the bond between regime and people, however strained it became, never snapped.

An air defence portable first-aid cupboard contains everything a household could need in the event of bomb injury. German citizens were encouraged to undertake ‘self protection’ by supplying themselves with equipment to deal with the immediate effects of bombing on their own house or apartment block.

THE ‘PEOPLE’S COMMUNITY’ UNDER THE BOMBS

The efforts of Party and state to keep the home front community sufficiently willing to fight until the end in the face of imminent defeat raises important questions not only about the failure of the Allied air forces to understand the extraordinary resilience of ‘morale’, but about how ordinary communities manage to cope with the exceptional demands of disaster. This was not like a tornado or an earthquake, a single event from which there is a slow recovery, but a long subjection to high levels of death and destruction in an environment of growing oppression and limited opportunities. The Party assumed that this was because of a growing identity with the ‘People's Community’, defined by Goebbels as the ‘community of Fate’. There were nevertheless more mundane reasons to explain the unavoidable adjustment to a world of almost permanent threat and inescapable loss.
Bunches of flowers left in memory of the dead in a ruined building in Kassel after the heavy bombing of October 1943. A total of around 6,000 people were killed in the raid, a higher proportion than in the Hamburg firestorm.

A sentimental image among the ruins of Kassel. A girl sits among the wild flowers that have grown up with the shell of the Martinskirche [Martin's Church] in the background.

Coping with Crisis

German urban populations were no more immune to bombing than British or Italian or French. The initial reaction was often disorientation, fear and anxiety, though the local authorities usually asserted in their reports that local behaviour was brave and stoical. The first major raids on the Baltic port of Rostock between 25 and 28 April 1942 were a good example of the different ways in which bombing affected a local community. The population was already in a state of alarm following the bombing of Lübeck shortly before when it was rumoured that 3,000 had been killed and 30,000 rendered homeless (when the true figure was a little over 300 dead, the highest figure so far in a raid on Germany). The first raid was coped with by the population, but the second and third found thousands fleeing into the local woods and countryside and local armed SS were called out to try to control the roads and avoid any social problems. A further wave of panic struck the following day with a daylight warning. Rumours soon took off: the population thought Sweden had declared war on Germany and was attacking the north coast; others assumed that there must be foreign agents hiding in the town to spread the rumour in the first place. Two looters were caught and one sentenced to death even before the raiding had ceased. A few days later people began to return, army field kitchens fed the homeless while building workers were already making the least damaged houses habitable. The local authorities reported that after a week they expected 'the normal situation of daily life' to have reasserted itself.
The punishment for looting in Germany during the Second World War was summary and severe. Looters could be tried with a few hours of being caught and the maximum punishment was execution. The sign above reads ‘Whoever loots will be punished by death’. Despite the risks, people continued to steal what they could as the raiding got worse.

In this situation the German urban population responded positively to the supply of food, the provision of medical assistance and rapid house repairs. In Cologne a month later after the first ‘1000 bomber raid’ the population reacted in the same way. Thousands of homeless either found accommodation with friends, left to join family or friends in the countryside or were found temporary shelter. Food was provided in canteens and emergency workers and soldiers helped to clear debris and repair housing. Here too looting was severely punished: all cases ended in death and were processed in just twelve hours. The situation became more difficult as the air war intensified. In the Ruhr-Rhineland city of Duisburg in May 1943 it proved difficult to distribute emergency clothes, since almost all shops were destroyed, while there were only two restaurants left in the centre of the city for 200,000 people. Field kitchens tried to cope with the demand. Workers brought in to help clear up were accommodated in schools, which were all closed. No accurate figure of the homeless could be found. For many who had lost everything (the ‘total bombed out’) there were long queues to get tokens for emergency clothing, but even with the coupons shops could not guarantee to supply anything. The mayor reported to Berlin a growing mood of resentment among the population, though he attributed this largely to a brief shock effect from the raid.
In the absence of effective transport in the ruined cities, Germans had to make the best of what was available. Here a man is pulled along in a handcart through streets cleared of rubble but surrounded by ruins.

Most raids were dealt with somewhere on a scale between these two experiences. For the bomb victims the important things were information and rapid welfare. The evidence from eye-witness accounts suggests that identification with the ‘People’s Community’, except among the cohort of enthusiastic Party members and supporters, was not irrelevant, but largely secondary. It was the case that Party members and SA and SS men did take an active and visible part in fighting the effects of the raids and took casualties as a result. But there were many examples of non-Party men and women acting with exemplary courage. As in other cities where men had disappeared to the front, women took on a growing number of air raid roles. One woman found herself trapped with others in an unlit cellar during the Gomorrah raid on Hamburg with the air slowly turning sour. She spent fifteen minutes hunting in the dark for the compulsory escape axe, found it and after twenty minutes smashed a hole in an escape hatch through which the cellarful of shelterers escaped.
To seal the ruined city from looters and to prevent the spread of disease, the authorities in Hamburg ordered a wall to be built around the damaged area. The sign reads ‘forbidden zone’. After the war the population of central Hamburg declined sharply as people moved away into the surrounding suburbs.

As the population took on more responsibility and suffered more as a result of the bombing, there was growing pressure to treat the urban dead as if they were soldiers of the home front. This fitted with the rhetoric of German home front propaganda but it raised awkward questions. Demands that the dead should be called ‘_Gefallene_’, the ‘fallen’, echoed the treatment of the military dead; some newspapers began to publish a small Iron Cross next to obituary notices. The armed forces refused both requests in May 1942 on the grounds that it diminished the soldier's sacrifice and trivialized the medal. The popular demand continued until Goebbels was forced a year later to insist that ‘fallen’ could not be used except for civil defence personnel in uniform or a citizen who had sacrificed himself in the course of exemplary air raid service.
A street scene in Hamburg after the bombing. The large department stores are empty shells, while people can be seen carrying piles of bedding. In some cases bomb victims were compensated with furniture and linen forcibly taken from German Jewish families.

This was a rare example of popular disquiet about air raid protection and the issues it raised. There was no room for popular discussion of the issues surrounding the war or criticism of the handling of raid and post-raid protection as there was in Britain. Unease found expression in rumours, which were widespread because of the failure to provide accurate details of losses, and jokes (‘You can tell they’re German fighters, the bombers have gone’). The powerlessness of the native population was taken out on those more disadvantaged than they – Jews, POWs and foreign labourers. In the Krupp works in Essen there were no shelters for foreign workers unless there was space left over after all Germans had a seat. Estimates range between 350 and 1,200 for Allied air crew murdered by the population before they got to a POW camp.
A large German construction vehicle helps to clear the rubble in the aftermath of a raid. The constant attacks in 1943 and 1944 forced up to two million workers to be engaged in repair, salvage and reconstruction work.

An enterprising woman in Hamburg using damaged bricks to rebuild a wall in front of her house. Women had to take a growing share of the tasks in the bombed cities. By 1945 over half the native German workforce was female and much of the job of reconstruction was undertaken by volunteer female labour.
There was also regular friction between ordinary Germans as a result of competition for food and shelter and, in evacuated areas, where the urban communities used to higher levels of amenity and entertainment and more sophisticated diets found life in remote villages uncongenial. A complainant from Upper Silesia in 1943 highlighted for the authorities in Berlin the sharp tension between the two sides. One woman was overheard to say: ‘Am I coming to a nest like this? I'd rather go back to the pile of ruins.’ There are numerous contemporary reports to show the opposite, that evacuees adjusted well to local life, but the material strains and military threats of the last twelve months of war made conditions for evacuation unhappy ones.

The Schlossplatz in Kassel shows a troop of rescue workers marching to their assigned area of devastation. Here as in other cities, the authorities made use of camp prisoners, POWs and the German Labour Service to provide the personnel needed for the extensive repair and demolition work needed.

A Community of Fate?

The absence of any avenue for social and political protest and the deteriorating conditions of urban life left a great many Germans in the last year of war in a tightening vice over which they could exert little pressure for relief. The few well-known examples of resistance in 1943 and 1944 brought instant reprisals from a security and policing apparatus bent on driving the system on despite the imminence of defeat. In 1944 Himmler announced increased penalties for anyone who slackened deliberately on air raid protection, to be enforced through the regular courts. Looting was now punished with instant death (hanging or shooting) for those caught by roving units of military police. By this stage of the war there was little to be gained by the German population in deliberately confronting a murderous apparatus: the only probable source of food, accommodation, medical assistance and employment was the regime. In that sense the German population did become Goebbels’ ‘community of fate’.
A square in Kassel with some of the dead laid out on the ground. With large numbers of dead it became necessary to use mass graves, much against the protest of the local population. The authorities had not anticipated that air attack would inflict such high levels of casualty.

It is also important to understand that despite the hardships induced by bombing, there were many sources of anxiety provoked by the collapsing war effort of which bombing was only one. Widespread though bombing and its effects undoubtedly were, millions were not regularly bombed or bombed at all and much of Germany’s total housing stock remained in being. Right to the end of the war the undamaged or less damaged part of the country managed to absorb the part that had been displaced. Industry too, despite high levels of damage was able to continue functioning until it was overrun by Allied armies.
In Hamburg and many other German cities it became the habit to put up signs to help people find lost relatives or friends or to announce new living quarters. The people recorded on this sign had been missing since the first raid of Operation Gomorrah, on 25 July 1943.

This does not mean that bombing strengthened war-willingness in Germany, but it was unable under existing political and social conditions to provoke widespread social or industrial unrest, as it did in Italy, and briefly in Britain. The physical suffering and psychological trauma was widespread and in many cases permanent. Popular efforts were devoted to coping with finding food and shelter, contacting family members, arguing for entitlement with officials or travelling across a murderous terrain. Productive endeavor slowly declined but people remained employed and paid and shops stayed open. Demoralisation in any meaningful sense certainly existed but refusal to sustain the war effort did not since that was a surer path to death than sitting in an air raid shelter.
The centre of Kassel after the bombing shows a confusion of Red Cross vehicles, bombed-out victims and rescue workers. The German civil defence system was based on a system of mutual aid. An attack on a city would bring fire, ambulance and rescue squads from cities hundreds of kilometres away.

THE EFFECTS OF THE BOMBING OF GERMANY

There has been a lively debate about the effects of bombing on German wartime economy and society ever since the end of the war in 1945-6 when the United States Strategic Bombing Survey and the British Bombing Survey Unit undertook detailed study of the results. Their judgement was not as favourable as might have been expected. The American survey admitted that bombing had taken time to achieve results and both surveys agreed that area bombing did less than had been hoped for it in terms of undermining Germany’s capacity to make war and the German people’s willingness to wage it.
Throughout the period of raiding in Germany, the authorities made use of forced camp labour. The workers here are wearing the striped uniform of camp inmates. Camp labour could be made to do the most dangerous or insanitary work. Unlike regular workers, they had no access to air raid shelters.

The question of whether bombing inhibited or undermined the German war economy is not a single or simple question and the answers have changed through time. In 1940-42 the effect was very limited and the system could, despite high levels of mobilization, absorb the damage. During the period 1943-45 the process of attrition was remorseless but even then severe and cumulative damage was done only in the last nine months of the conflict and only on certain specified industries – chemicals, explosives, oil, and a range of major arms sectors. Area bombing did reduce productivity (though at high human cost) and did compel Germany to divert a substantial proportion of resources to combating the bombing, but it was a very blunt instrument to achieve in the end a limited set of objectives. An example of its impact can be found in the German gas supply industry in 1943, the transition year in area bombing. Despite regular hits on gasholders and installations, the industry throughout the year had a higher proportion of unutilized capacity in store than had been destroyed by bomb attack. There was no doubt a limited opportunity cost here, but the main disruption to German war-making came not from production loss but from the diversion of production, personnel, equipment and stores to the vast anti-air and civil defence organization, which required more than three million people on standby and a home air defence that eventually absorbed around three-quarters of the fighting power of the German Air Force.
Hamburg ablaze during the firestorm of 27 July 1943. Most of the city centre was burnt out and an estimated 37,000 people killed.

An extraordinary panorama of ruins. The remains of Hamburg after the raids of Operation Gomorrah in July and early August 1943. ‘We all entertained the idea of an apocalypse,’ wrote the Hamburg novelist Hans Nossack. ‘The events of our time suggested it.’

The belief that ‘morale’ would break as a result of bombing was never fulfilled, though the cost to the German population of the effort to justify this belief was substantial. Estimates range between 380,000 and 420,000 German dead with an additional 60,000 foreign workers and POWs. There were in addition around half a million disabled or seriously injured. The problem of coping with large
numbers of permanently disabled, particularly amputees and blind, carried on long into the postwar world. Damage to Germany’s infrastructure and built environment was already estimated at the end of 1943 at 50 billion marks. Around 50 per cent of the built-up area of Germany’s major cities and towns was destroyed by bombing.

The streets of Kassel after they had been cleared of the rubble from the firestorm attack in October 1943. Some 59 per cent of the residential district was destroyed and an estimated 150,000 were made homeless.

The effects on German belief and outlook during the war varied from situation to situation. Bombing in summer 1940 did encourage popular protests about the lack of reprisal and pushed Hitler towards the bombing of London. According to some accounts bombing was seen by Germans hostile to National Socialism as a kind of retribution or punishment for the things German forces had done to others, and the German security apparatus was doing to the Jews. As the bombing got worse it encouraged renewed popular demands for vengeance, which was realized tardily in the launch of the V1s and V2s in the summer and autumn of 1944. Bombing may also have accelerated the vengeance of Germany’s cohort of violent anti-Semites, almost all of them in the Party, against the Jews of Germany and Europe. At one town in the Ruhr the first raids early in 1941 brought demands to be allowed to remove Jews from their apartments and houses in order to give them to the ‘Aryan’ bombed-out. Later, recourse to Jewish property to help to supply material goods to the bomb victims became routine. Here an unhappy symbiosis emerged between the victimization of German civilians and the German victimization of the Jews. Bombing could also be exploited by the propaganda apparatus in Germany to suggest that bombing was the revenge of the Jews at the hands of Anglo-Saxon barbarians, bent on eradicating German culture and enslaving Europe. Few, perhaps, of Goebbels’ listeners accepted the argument at face value, but as the bombing reached its crescendo the fear planted in German heads of what the Allies would do to Germany once it was defeated might have seemed less far-fetched. In all these ways the impact of almost five years of
being bombed intercut with other priorities of the dictatorship and with the popular fears and expectations of the population about what that dictatorship represented.

Robert Ley, head of the German Labour Front (DAF), was put in charge of designing and building cheap prefabricated houses for the bombed out urban populations. The houses seen here were promised in thousands but in the end relentless bombing made the programme unrealistic. Some of the homeless found themselves forced to live in tent settlements or crudely made concrete huts.