		SEMBOKU	YURI	HIRAKA	OGACHI	TOTAL
1936						
KAWAMATA	(P)	5,872	2,972	5,943	2,628	17,415
OYAMADA	(S)	12,781	2,076	150	54	15,061
TSUCHIDA	(M)	4,221	1,033	7,178	1,245	13,677
SOEDA	(M*)	603	2,887	1,513	7,614	12,617
SATO	(S)	350	3,577	4,706	3,848	12,482
INOMATA	(M*)	1,908	6,612	84	396	9,000
1937						
KAWAMATA	(P)	6,202	2,931	6,226	4,364	19,723
OYAMADA	(S)	13,300	2,108	182	76	15,666
TSUCHIDA	(M)	4,668	872	7,671	1,507	14,718
SATO	(S)	334	1,965	4,689	7,404	14,392
KURODA	(M)	474	12,015	264	1,177	13,930
1942					•	
KAWAMATA		4,673	1,380	7,216	3,807	17,076
OYAMADA	(TY)	11,295	1,598	1,898	1,614	16,405
SAITO	(TY)	181	9,542	610	2,433	12,766
TSUCHIDA	` '	1,256	183	5,601	1,499	8,539
FUJIHI	(TY)	6,451	73	893	102	7,519
INOMATA	` '	956	5,913	304	213	7,386
IIZUKA		295	23	277	5,618	6,213
SUZUKI		186	110	1,318	335	1,949

Note: The Yamamoto figures for 1942 include those for Noshiro city, which had been made a separate electoral sub-division.

(M) = MINSEITÕ: (S) = SEIYŪKAI: (P) = PROLETARIAN:

(RY) = RIKKEN YŌSEIKAI: (I) = INDEPENDENT:

(T) = TÖHÖKAI: (TY) = ENDORSED BY TAISEI YOKUSANKAI

# THE GREAT TOKYO AIR RAID, 9-10 MARCH 1945

## GORDON DANIELS

If curiosity drives the historian to investigate the Great Tokyo Air Raid he is soon aware of the destructive power of his fellow scholars. It is inevitable that researchers omit and discard much of the human past when transmitting a serviceable version of events to the next generation; but in this instance one is drawn to analyse the process of selection which has almost removed this incident from historical consciousness. Such an analysis may not only spotlight the event itself but also amplify the rhythms and dissonances of a whole period. Furthermore, this investigation may further clarify the prejudices and priorities of important and influential historians.

If one consults the six most widely used histories of Japan written in English one finds scant information on the Tokyo Air Raid. The fullest treatment swells to some four sentences, but three of the works condense their account into a single sentence or dismiss it without mention.

Similarly, if one searches for factual or statistical material the results are even more disappointing. Three books provide no indication of the fatalities involved and those books which do give somewhat different estimates.1 It may be tasteless and almost inhuman to discuss the measurement of what is psychologically and emotionally immeasurable, but any attempt at sympathetic reconstruction must begin with a keel of fact, a due concern for documentary precision.

If the investigator then turns to the work of Japanese historians he will find them surprisingly similar in their treatment of the event. Professor Ishida Takeshi's Hakyokyu to Heiwa (1941-52), like Tōyama, Imai and Fujiwara's older Shōwa shi, makes no specific reference to the March raid, while Professor Inoue Kiyoshi's Nihon no Rekishi baldly states that 'Southern Tokyo received a heavy raid and became a burnt out area'.2 The five authors of the Asahi Shinbun publication Shōwa shi no Shunkan omit 10 March from the incidents they describe in detail and only refer to its

<sup>\*</sup> Indicates candidates who did not have official party endorsement.

'90,000 casualties' in the context of the quickening policy of evacuation.<sup>3</sup> As one might expect, Hayashi Shigeru's 500-page work, Taiheiyō Sensō, the twenty-fifth volume in the Chūō Kōron History of Japan series, gives more spacious coverage to the catastrophe. But this account only amounts to some five and a half illustrated pages entitled 'Air Raids' with the subtitle 'indiscriminate bombing'. It outlines the stages of the bombing campaign, the inconsistencies in civil defence thinking, and popular superstitions of the time. Even this narrative is somewhat weak in military and social analysis and is less rewarding than the mosaic of documentary material assembled in the third volume of Nihon no Hyakunen by Tsurumi Shunsuke and his co-editors. This account is of similar scale and scope to the section in Taiheiyō Sensō but gains special vividness from its extracts from official reports and diaries.

One obvious reaction to these threadbare descriptions and analyses is to question why important documents and the deaths of tens of thousands of people have received so little attention from historians on both sides of the Pacific Ocean. There are perhaps four tests one might apply in seeking an explanation of this flagrant case of historical negligence. Initially one may query whether the raid was in fact unique or remarkable in the sequence of air assaults on Japan. Despite all the casualties and destruction, if this was merely one of many similar strikes one may argue that it should be ignored. But this was clearly not the case. This was the first mass incendiary bombardment after some nine months of predominantly high explosive bombing. Other ambitious fire attacks followed, but this was undoubtedly the most efficacious.<sup>6</sup>

A further possibility is that this incident, for all its vast scale and well-recorded effectiveness, was overshadowed by other strikes against the Japanese mainland. This it was, for the nuclear attacks of August 1945 were more dramatically destructive and thus for scientific as well as political reasons have received much greater attention in academic and popular literature.

It is also true that the overwhelming majority of historians are more concerned with the history of politics and society than with the analysis of destruction, and these scholars may wish to know if this disaster had any important impact on the domestic policies of the Japanese government, or on Japan's ability to wage war. A dissection of the immediate aftermath of 10 March indicates that the attack was a momentous one in all these fields and any broadranging political analysis cannot justifiably ignore the effects of this one night's bombing on Japanese society.<sup>7</sup>

Finally, and most importantly, one must ask if the historiography of this single incendiary attack can be linked with the general as-

sumptions of historians about the Pacific War. One view which unites virtually all the historians under discussion is antipathy or hatred for the men who ruled Japan in the years 1941-5. Japanese Marxists and American liberals can agree on this object of scorn though they may dislike each other and disagree in their diagnosis of Japanese military rule. Almost all these writers not only object to the authoritarian domestic policies of Prime Minister Tōjō and his successors, but they rejoiced in the total collapse of their expansionist foreign policies. As a result, all of them have consciously or unconsciously sought to detail the decline and demise of Imperial Japan and have concentrated attention upon events which best mark the process of irrational staggering to inevitable collapse. If defeat is to be the leit-motiv, then perhaps it is understandable if not wholly accurate to dwell upon certain military catastrophes rather than upon domestic policies or instances of American failure. Such an approach may well explain the neglect of this incident, which is directly linked to these elements in Japanese war history.8

If American writers lay most emphasis on allied victory and the gashes cut out through Japan's defences, Japanese scholars have a somewhat broader focus. They place more stress upon the deprivation and suffering endured by ordinary Japanese as the result of the stupid acts of their rulers. The *kamikaze* plane, the suicidal struggle for Saipan, falling rations and aerial bombardment are understandably presented as the outcome of irrational policies, but positive government policies are correspondingly ignored.<sup>9</sup>

Viewed from the 1950s, the 1960s or the 1970s, the final six months of the Pacific War appear as a time when Japan was straining towards inevitable defeat. But in March 1945 American soldiers, sailors and air crews were still suffering considerable casualties and they counted their losses more carefully than their enemies. To these men the irrationality of Japanese tactics was no consolation; if anything it added to their difficulties.

Despite costly and exhausting struggles, by March 1945 the United States had gained important bases in the Marianas. The Japanese air force had made its last attack on Saipan and B29s based in China had been attacking mainland Japan for almost nine months. Against this was the surprisingly costly battle for Iwojima, and until this was over there was no completely safe haven for American aircraft between their targets and their island bases 1,500 miles to the south. The vital battle for Okinawa still lay in the future. In China, Kuomintang forces had failed abysmally against Japan's Ichi-Go offensive of 1944. At this point the outcome of the war may have been decided, but how long Japan would resist and

how expensive victory would be were serious and depressing enigmas. The historians of Japan whom I have cited, correctly describe the ever increasing momentum of American heavy bombing of Japan which had begun with the Superfortress raid on the Yahata steel works on 16 June 1944, but the rising frequency of American raids should not be interpreted as a story of unqualified success. The first nine months of B29 action were marked by a series of technical problems which produced deep exasperation at the inability of this new, expensive plane to achieve what had been hoped. The fast, well-armed, high-flying Superfortress had been designed for unescorted, daylight precision raids, and this had been its role in the first phase of its strikes against Japan.11 Unfortunately, even in the summer of 1944 the plane's fuel system was causing repeated problems, and there were numerous losses due to mechanical faults.12 Its radar system for bomb-aiming was also new and imperfect, while the technical novelties of this electronic equipment were further complicated by the vagaries of personnel policy in the United States air force. For several months radar operators were chosen from men who had been trained as gunners, a pool of airmen who had failed to pass aptitude tests for such skilled roles as navigators and radio operators.<sup>13</sup> In other words, advanced, delicate equipment was being handled rather clumsily and unsuccessfully by men with the least technical ability among flying crew personnel.

Weather conditions also contributed to a large number of abortive sorties against key military targets. Cloud over Yahata had foiled the first raid on Kita Kyūshū, and damage to the steel plant had been derisory.14 High winds often blew bombs off course and added a further margin of inaccuracy to American attacks. It required some eight raids to inflict significant damage on the Nakajima aircraft factory on the western fringes of Tokyo, which seemed a poor return for all the research and resources which had been invested in America's most advanced bomber.15 It was against this background that the 10 March raid on Tokyo was conceived, planned and executed.

Despite the trouble and failures which had thwarted daylight precision bombing it was not easy to embark upon a new policy. The original conception of the Superfortress's role was so deeply ingrained in official thinking that it was not a simple matter to reject it for some new strategy. 16 Perhaps more important was the view that the plane's unconvincing performance was due to its novelty and that to change tactics at this stage might create a new range of operating difficulties.

Although the idea of a large incendiary raid on Honshu was clearly the outcome of previous failures, the notion of fire raids on Japanese cities had been discussed in the air force for some time.<sup>17</sup> At first there were surprising doubts about the inflammability of Japanese buildings and in 1943 an initial experiment was carried out. Mock-ups of Japanese houses were constructed at Eglin air base in Florida and then ignited with incendiary bombs. The results were deemed to be satisfactory, but before the new weapon could be employed with concentrated might a more realistic test was thought necessary. The next step towards the use of incendiaries was taken by General Curtis LeMay, who had recently replaced General Hansell, the unsuccessful commander of the B29 fleet in the Marianas. On 25 February against considerable specialist opposition. LeMay ordered 130 bombers to make a trial raid on Tokyo. Just before 3 on a snowy afternoon incendiaries were dropped and large fires were started. Perhaps because this was a daylight raid, casualties amounted only to 640, but a record number of 25,000 buildings were destroyed.<sup>18</sup> These results helped LeMay to overcome the sceptics and attempt to repeat his successful Hamburg fire raid over Tokyo.

At this point one is led to explore the results which this new policy was expected to achieve in terms of the generalities of the Pacific War. First, one might note that what was now proposed was not a new method of attacking the exactly defined military targets which had so far been the objectives of United States' bombers. There seems no reason to doubt that aircraft factories and munitions plants were still of great military importance, but now a dramatic shift of target was envisaged. The destruction of special factories was no longer seen as the overwhelming priority, and attention was turned to the heavily populated areas of Japanese cities. Here buildings were light, inflammable and tightly bunched together. Inflammability was probably the chief qualification these quarters had as targets for fire bombing, but one cannot deny that these areas played at least some role in Japanese war production. It is well known that the segregation of residential and industrial areas in Japanese cities is unclear and often non-existent. And this is particularly true of areas with large numbers of small- and medium-scale firms making components for large and more sophisticated companies. In view of this, the destruction of any thickly peopled shitamachi area would destroy some of the tap-roots of military output, besides leading to the permanent or temporary absenteeism of workers living in the locality. If one was to destroy and disrupt the activities of hundreds of small workshops and warehouses it was inevitable that residential areas would burn and people die. If this was a military imperative perhaps it was unavoidable, but experts such as official historians, sympathetic to Twentieth Air Force, never present the burning of civilians as a necessary evil, secondary to razing minor factories. Equally important in contemporary minds was the psychological impact of death and destruction. At a time when the Japanese were showing amazing success in gearing their forces to unprecedented selfsacrifice, it seemed important to unbalance Japanese morale by a spectacular exhibition of American power. A clear demonstration of the air superiority of the United States could well damage the weakening faith of the Japanese in their leaders and help make the austerities of war unacceptable. In short, aside from physical destruction and fear it was hoped that such a raid would make recent American victories clear to millions of Japanese people.19 In a strange and macabre sense, it was to be an appeal to the people over the propaganda palisades which protected Japanese from news of American triumphs in the Pacific islands. Parallel to these broader objectives was probably a somewhat weaker hope that extensive damage to the Imperial capital might unsteady the resolve of the Japanese government to carry on the war.

If attention is turned to the domestic politics of the Twentieth Air Force it seems certain that the ineffective programme of precision raids had created a strong head of pressure for some redeeming act which would prove the worth of the B29 and remove any suspicion of ineffectiveness surrounding the higher command.<sup>20</sup> It was necessary to show that the Superfortress fleet was making a demonstrable contribution to shortening the war and reducing casualties. It is difficult to assess the various currents of motivation surrounding the decision to change the policy, but perhaps both service pride and military considerations played a part in producing the final verdict.

A new choice of target and a new weapon—the incendiary—were not the only innovations which were planned for the great attack. One arresting new feature was the scale of the force to be launched against Japan's most populous city. Although the numbers of aircraft involved are a matter of some controversy, it is clear that an unprecedented body of planes bombed Tokyo. On 11 March, Asahi Shinbun reported that '130 B29s carried out indiscriminate bombing of the Imperial capital last night'. But these figures were issued by the Imperial headquarters which probably sought to minimise the attack in information given to the public. The confused condition of Tokyo during the raid may also have made accurate estimates difficult. The Fire Defence Board (Shōbōchō) later published an estimate of 150.21 This latter figure is frequently cited by Japanese historians, but it is difficult to accept.22 The official history of the army air forces, written long before the raid became a matter of moral controversy, states that 334 planes made up the raiding force, and contemporary press accounts all claimed that 'over 300' machines had left their bases.<sup>23</sup>

The general tactics of the American aircraft could all be summarised under the heading 'surprise'. Whereas most previous raids had been carried out from high altitudes of up to 30,000 feet, in daylight, this was to be a low-level night attack. Apart from the obvious advantages of the cover of darkness, it was known that Japanese anti-aircraft defences were psychologically and technically unprepared for planes crossing the city at night at low altitudes. If aircraft flew low they could discard the fuel usually carried for climbing and operating at high altitudes and replace it with a much heavier bomb load. Weight-saving and the advantages of a surprise attack were valued so highly that the bombers apparently carried no ammunition for their ten defensive machine guns. This was also thought to have the added advantage of avoiding accidental damage to friendly planes.<sup>24</sup>

Surprise was also evident in the pattern of approach planned for the American aircraft. Rather than arriving over the target region in clearly structured formation, they were to come in small groups, bearing in from different directions. This would make their flight paths unpredictable to defensive forces and enable American crews to single out visually patches of the city which were still free from fire.

American commanders knew from trial raids and intelligence of the likely defensive armament which the Japanese would turn against them in such a raid. Japanese aircraft production had reached its peak in 1944, when 28,000 planes were produced, but now output was falling and fighters were in critically short supply.<sup>25</sup> In the spring of 1945 Japan had only two units of effective night fighters available for action and many interceptor aircraft were being held in reserve to defend Okinawa and the mainland from physical invasion. Japan's anti-aircraft batteries were also poorly equipped to repel a major onslaught on the capital. They lacked the effective radar-controlled gun-laying system which had been developed in Western Europe and America and gunners relied on search-lights when taking aim. Aircraft batteries were principally deployed around heavy industrial areas, and Tokyo had almost none of the 20 mm and 40 mm weapons needed for dealing with low-level raiders.26

In facing the superior population, productivity and resources of the United States and her allies, it is understandable that Japan's military defences were in the end inadequate. But this hardly explains the tardy and ineffectual nature of her civil defence preparations.

Air raids had originally been regarded by Japanese rulers as part of the new, modern scientific world of the inter-war years. The first recorded air raid drill took place in Osaka in June 1928.<sup>27</sup> This was primarily an exercise in extinguishing lights, but more serious and frequent demonstrations of interest soon followed. At this stage air-raid precautions were the exclusive concern of municipal not national government, and it is thus no coincidence that the reform of Tokyo administration in 1932 helped quicken interest in civilian defence. The reform of Tokyo's government system transformed the eighty-four suburban cities of Tokyo into twenty new wards with a population of three and a half million. These were added to the fifteen wards of the old city making a total population of 5,500,000. This new municipal authority sought to demonstrate its modernity in every possible respect; and air raids appeared to be the most up-to-date city problem that could confront a progressive administration.<sup>28</sup> Tokyo now redoubled its efforts to rouse its citizens to awareness of civilian defence. In August 1933 the first major blackout exercise was held in Tokyo and it subsequently became an annual event. Exhibitions of model planes, First World War bombs and model shelters were often held in department stores to accompany blackout week, but there was no large expenditure of money or public commitment to the programme.

The first government legislation as opposed to municipal action came in April 1937 with the enactment of the National Civilian Air Defence Law, which transferred responsibilities in this field to national and prefectural authorities. Tokyo's air-raid measures were to be the model for other large cities. Unfortunately, the effect of the new law was to create confusion, time wasting and conflict. At the national level individual ministries were empowered to construct their own regulations with no clear provisions for co-ordination. Rules were drafted with little thought to consistency and often produced contradictory provisions. In Tokyo this administrative cocktail was even more piquant as the Tokyo Municipal office which had created the original programme came into conflict with the prefectural government. The latter had the legal powers to manage civil defence but was resisted by the older authority. If this administrative jostling was not enough there was always the Metropolitan Police Board, which considered itself quite independent of the rest of the city's administration and refused instructions from any body but the Home Ministry. Such kaleidoscopic rivalry diverted much energy from civil defence to manhandling rival bodies. The end result was delay and maladministration.

Above the internecine strife of administrators the national government dictated the broad strategy of all aspects of defence. From the beginning civil defence thinking was swathed in ambiguity and misunderstanding. In the early stages of the war military successes and economic needs combined to produce considerable complacency. At first, warnings of American aircraft near Wake island were transmitted to Tokyo, frequent siren warnings were sounded and workers left their desks and lathes. This soon proved economically disastrous and Tokyo's population were subjected to less frequent sirens and a feeling of security.<sup>29</sup>

In some senses the ambiguity of policy was deepened by the Doolittle raid of sixteen B25s on Tokyo in April 1942. Due to mistakes by Japanese observer ships, which believed that the bombers' carrier USS Hornet was too far from Tokyo for an attack to be possible, the attack was a complete surprise. Sirens only sounded after bombs had fallen. Yet losses were light. Fifty people were killed, a hundred houses destroyed, fires were easily extinguished, and existing provisions seemed adequate if not totally satisfactory. The basic premise of the Japanese government was that enemy planes would rarely reach Japan and that those that did would be few in number, seeking out individual buildings. Nets were later used to camouflage the Diet building, but 90 per cent of office buildings were never camouflaged in any way. The Japanese government felt that their image of omniscience had been damaged by the Doolittle raid. Three captured pilots were executed, but there was no important change in civil defence.30

Between April 1942 and Spring 1945 Japan experienced a depressing series of military reverses and the realities of air power became unpleasantly apparent. From November 1944 B29s raided factories in the Kanto, and Tokyo citizens referred to the frequent visitors as 'Lord B', 'okyakusama' (visitors), and 'regular mail'.<sup>31</sup>

In response to these developments air-raid counter-policies became more serious and new lines of action were initiated. In view of Japan's early interest in civil defence and her own bombing activities in China it is surprising that these measures were so slow to gather impetus and so inefficient in execution. Whatever the chronology of official action, its inconsistencies were so great that it is impossible to determine at what point most leaders felt genuinely certain that Tokyo was secure and when their statements were made to prevent the corrosion of morale.

Even as early as 1940 there were already deep contradictions in official statements. At this point most officials with civil defence responsibilities believed, on the basis of government statements, that Tokyo was in little serious danger from air bombing. In contrast, the undertakers of Tokyo became concerned at their likely role in any possible air raid. In the event of such an attack

they were to co-operate with the police in gathering bodies and disposing of them in an orderly manner. In order to make appropriate plans they asked the army headquarters to estimate the likely number of extra deaths in one year, in the event of an air war. The official answer to this inquiry was the figure of 30,000.<sup>32</sup> This statistic was easily surpassed on 10 March, but that it was presented before Pearl Harbor shows that some military men were hardly confident of Tokyo's invulnerability.

By the spring of 1945 Tokyo had undergone yet another administrative transformation. In July 1943 the prefectural and municipal governments were combined into Tokyo-to, which helped to improve co-ordination in air defence. Parallel with this were three main areas of renewed government activity. The first of these was instruction. By now the 2.75 million citizens organised in a hierarchy of organisations were receiving increasing training in civil defence. Some 2.5 million people were embraced in the *tonari-gumi* system, while a further 32,000 professional and volunteer workers including the police, fire department and an emergency public works construction unit were undergoing more intense instruction on defence against raids.

The second main sphere of central government activity lay in the dispersal of buildings, institutions and people. In comparison with the preliminary evacuation of children in Britain at the opening of the European war this policy was discussed and decided at a very late stage in Japan. It was not until after the lions in the Ueno Zoo had been destroyed for fear of them escaping in an air raid that the evacuation of government offices was decided in September 1943.34 Plans for evacuating important sections of the community were not published until November and no orders were issued until January 1944. By this time from 10,000 to 20,000 people had already left Tokyo voluntarily, but the future pattern of evacuation was determined by military defeats rather than by an organised plan. With the invasion of Saipan in June 1944 there were efforts to reach a total of one million evacuees by September. These were primarily people not essential for industry. It was not until August that primary school children in the third to sixth forms were moved in groups to country areas. By March 1945 over 1.7 million people had left Tokyo, including over 20,000 citizens whose homes had been demolished to create fire breaks. This still left over 6 million people in the city and there was no compulsory evacuation of any groups apart from part of the primary school population. In view of the very close ties most Tokyo dwellers had with relatives in safe rural areas it is surprising that no more ambitious evacuation policy was enforced after November 1944.35 This somewhat cautious line of

action is particularly strange as evacuation is relatively inexpensive in comparison with most other aspects of civil defence and had been widely employed in Western Europe.

The third main sphere of civil defence provision was that designed to provide physical protection for people living and working in the city. The most ambitious aspect of these activities was the provision of shelters of varying types and sizes for Tokyo residents. This policy, like evacuation, was begun late, and this not only restricted time for shelter construction but also meant that building materials were required when resources were short and could not be spared for such 'non-essential' construction. It is true that by the spring of 1945 every Tokyo citizen was supposed to have a shelter in which to seek refuge, but their location and quality left much to be desired. As Tokyo's underground was shallow and her soil relatively unstable they were unsuitable for shelters. Thus the most effective ready-made shelters were in the basements of modern Western-style buildings, many of which had been designed to resist possible earthquakes. Whatever the structural merits of these underground shelters they were mostly to be found in the business centre, far from the homes of people allocated to use them. Equally effective structurally were concrete shelters planned by the authorities, but cement was so scarce that only eighteen were built by the spring of 1945 and their total capacity was less than 5,000.36

In other words, the shelter provision for most of Tokyo's population was highly inadequate. Trenches, at best covered with a concrete roof but without seating, heating or sanitation, were provided for some 2 million people, but they provided little protection. Space between houses was often so restricted that garden shelters provided little more safety than following the government's first instruction, to hide in the clothes cupboard of one's own home.<sup>37</sup> The next most prevalent shelter was the tunnel variety, often driven into hill-sides, frequently at a distance from residential areas. These were often provided with equipment and food, but in the case of sudden attacks they were difficult to reach. In the case of smaller tunnel shelters, the occupants were likely to be suffocated if large-scale fires broke out in the immediate area.

Overall it is clear that the statistical balance between citizens and shelter space in Tokyo was sickeningly deceptive. Modern accessible shelters were negligible and the distribution of all types of shelters was tragically unsatisfactory. The main control centre of civil and military air-raid action was in the basement of an ordinary Western-style building, and hospitals had inadequate shelter provision in their immediate areas.

To complement their developing shelter policy the Japanese

authorities recognised that special measures were needed to protect the densely populated warrens of narrow streets and wooden buildings which made up much of the poorer areas of Tokyo. The main defensive action announced in late 1943 and acted upon the following year was the destruction of lines of buildings to provide fire breaks. Had this policy been carried out speedily on a vast enough scale it may well have done something to contain spreading flames, but this was not the case. Shortages of men and equipment prevented the fire breaks being developed on a sufficient scale to fulfil their purpose. In many cases houses were evacuated and demolished but piles of timber were left where the buildings had stood so that the whole object of demolition was vitiated.<sup>38</sup>

It was thus against fragile and depleted civilian and military defences that the unprecedented force of B29s was launched on 9 March. Units from the 314th Wings 19th and 29th groups took off from Guam, and soon after more aircraft left Saipan and Tinian. It took some two and a half hours for all the planes to take off with their maximum load of six tons of incendiaries. Oil, phosphorous and M69 napalm bombs were carried, the latter being used by the first group of planes to start fires and illuminate the target. This was the Asakusa ward, to the east of the Imperial Palace (which was clearly designated as outside the target zone). Besides being a flat area of narrow streets and flimsy structures, it was characterised by a very high roof density.<sup>39</sup> Its population density was 103,000 per square mile. It was approximately 12 square miles in area and some 2,000 tons of incendiaries were used for its destruction.

Japanese radar stations in the Bonin islands and observer ships patrolling off the mainland detected the aircraft before they reached the Japanese coast, but no warning was broadcast until 10.30 p.m. when the first planes appeared over the Boso peninsula. Early warnings explained that the bombers were turning away to the sea but these may well have been decoy aircraft. By 12.08 hundreds of incendiaries were falling over large areas on both sides of the Sumida river. The attack warning was not broadcast until 12.15, and the raid continued for two hours.<sup>40</sup> During this time fighter planes, anti-aircraft batteries, and over 300 fire engines sought to resist the American planes and the conflagration which they created. Some American aircraft reported 'flak moderate, fighter opposition nil', but fighter interception developed during the two hours of the attack. Some forty-three sightings of fighters were reported and though American press reports spoke of two or no planes lost the Asahi Shinbun and the official Air Force History report fourteen and fifteen planes brought down by interceptors and anti-aircraft

fire.<sup>41</sup> Numbers of Japanese fighters were small, there was no low-level anti-aircraft fire and many gun emplacements were overcome by the webs of flame which stretched over large tracts of the city. As a result, no military action could divert or interrupt the execution of the raid. Tokyo was defenceless.

The technical and military superiority of the United States Air Force combined with the tinderlike character of Japanese buildings was sufficient to ensure a vast destructive fire, with thousands of deaths. But topography and weather conditions transformed the scene into an almost surrealist masterpiece of flame and agony reminiscent of Bosch, Bacon or Goya in their most tormented works. Through the two hours of falling bombs a high wind cut through the city at over forty miles per hour, spurring on the fire and pressing it well beyond the predicted target area.<sup>42</sup>

For residents hoping to flee from the vast red dome which enclosed them the very rivers and canals which gave commercial vitality to shitamachi Tokyo became barriers to escape, and many flung themselves into waterways to sidestep the stampeding fire. Hundreds were drowned as thicker and thicker crowds sought refuge in narrow channels. To hold one's head above the surface for a moment was often to be choked or burnt to death by smoke and barbs of flame.<sup>43</sup>

Besides the invincible combination of wind and fire, Tokyo's citizens were also threatened by the unscientific instructions propounded in government manuals on air-raid precautions. People had repeatedly been told to keep sand bags and buckets in each genkan, and place sticky tape over glass doors; but more important than all these had been the emphasis placed on communal effort, resolve and courage. The Air Defence Law forbade essential workers escaping from the city during a period of raids, and training had instilled a willingness to fight fires with simple bucket chains and bags of sand.44 The avoidance of panic which was often preached was certainly an important virtue, but vain unscientific attempts to fight uncontrollable fires probably caused far more deaths than they prevented. Tokyo's fire brigades were hardly well equipped in comparison with metropolitan forces in North America and Europe, but they received notable help from the forces of nearby Kanagawa, Chiba and Saitama prefectures, and tried courageously to limit the spreading fires. The experiences of the head of the Tokyo fire brigade vividly illustrate the impossibility of quenching the fires and the worsening situation during the first two hours of 10 March. After hearing of the fires, Fire Chief Shinoda went by car to Kanda where there were huge fires. At Shitaya his car caught fire, and after this had been extinguished he proceeded to Ueno and Honjo where flames again spread to his vehicle. After seeing the

road at Fukugawa blocked with corpses and encouraging some of his men, he returned to his headquarters, lucky to have survived the twisting course of the conflagration.<sup>45</sup> For the thousands of people who were fleeing from the blaze the only substantial buildings which might afford shelter were schools and theatres. It was in these places that tightly packed masses of people gathered and were caught by the uncontrollable flames.

Almost every relief service collapsed under the immediate impact of the raid. Of over 250 medical stations operated by the government and Red Cross, 100 were destroyed by fire. Already medicine and other supplies were in extremely short supply as no one had envisaged such enormous hordes of casualties. In some cases, doctors were driven to using soiled dressings and the maintenance of minimum standards of hygiene became almost impossible.<sup>46</sup>

Perhaps the scale of the fires, which spread far outside the original target area, can best be gauged by the eye-witness accounts of pilots and journalists travelling in B29s participating in the attack. They reported that Tokyo's fires could be seen 150 miles out in the Pacific and aircraft over the city were permeated by smoke rising from the blaze. 'The plane smelt like the interior of a long burnt building' remarked one journalist, <sup>47</sup> and on returning to their bases in the Marianas the fuselages of the planes were covered with soot which had risen from the inferno. Hot air rising from the devastated area created thrusting air turbulence which spun the 90 feet long aircraft 2,000 feet skyward. Pilots had been asked to evaluate their results on a four-point scale—none, small, large and conflagration, and unanimously they reported Tokyo in a state of conflagration.<sup>48</sup>

The original target area of ten square miles had been easily exceeded by the spreading blaze. The total devastated area was some fourteen square miles in which 60 per cent of all buildings were destroyed. The original target had been astride the Sumidagawa; one-third being to the east and two-thirds to the west. The areas of Asakusa, Honjo, Fukugawa, Jōtō and Edogawa had all been devastated. The stables of the Imperial Palace caught fire and according to Japanese broadcasts blazed until 3.00 a.m. Many other fires continued to blaze and smoulder for twelve hours after the raid had commenced. The scale of devastation was made graphic for Americans in the following description in the New York Times:

'Imagine Manhattan from Washington Square northward to Sixtieth Street plus the Borough Hall, Bay Ridge, Greenpoint, Williamsburg and Fulton Street, sections of Brooklyn, add Long' Island City and Astoria and Staten Island burned out so not a roof top is visible and the picture becomes clearer of the area burned out by the American bombers yesterday morning.'49

This was confirmed later by statements by the Tokyo fire chief, who listed over forty-three factories damaged by this single raid.<sup>50</sup>

Whatever the failures of policy, politics and imagination which had characterised government action before this raid, this overwhelming catastrophe, which was clear to everyone in responsible positions, compelled drastic changes in a whole range of policies. Perhaps equally significant was the great change in public mood which accompanied the sight of over a million homeless people, in desperate need of temporary shelter and emergency provisions. Citizens who had survived the fire in Tokyo and residents in nearby prefectures immediately threw open temples, schools and theatres to accommodate and provide free meals for survivors. Several communities even offered survivors free use of their bath-houses until the emergency was over.<sup>51</sup>

Perhaps as striking as cabinet discussions on relief policy was the manner in which the customary cobwebs of Japanese bureaucracy were torn away to allow rapid action. After previous air raids certificates had been necessary to obtain meals or emergency accommodation. Even more important, they had been demanded when an air-raid victim wished to travel on trains reserved for evacuees. In the crisis after 10 March all requirements regarding documents were waived in an all-out effort to relieve suffering.<sup>52</sup> Although this implied a sharp reversal of official practice it is doubtful if it led to any widespread abuses. Apart from the communal spirit which was fortified by adversity, the highly organised and integrated character of Japanese society, with its hierarchy of citizens' organisations, made it extremely difficult to pose falsely as a victim without being discovered. Within five days, when the immediate wave of disaster had passed, certificates were again demanded and a frail element of normality returned to the situation.-Over a million people left Tokyo as a result of the air raid and evacuation took on a solid urgency which had never motivated government policy in earlier years.

While the survival and evacuation of survivors was the first priority after this catastrophe, the disposal of the dead and the restoration of disrupted water supplies and other public services was also of pressing importance. In both these fields existing plans and arrangements proved completely inadequate to deal with the task at hand. Previous plans provided for the orderly collection of bodies, their identification by relatives or the authorities, and burial or cremation in individual graves. Faced by vast numbers of dead

and the lack of means of identification of heavily charred corpses, it was decided to bury many in mass graves, with the intention of exhuming them three years later for more orderly burial. All the remains were not cleared for some twenty days after the raid.

After earlier air raids public authorities had usually been able to repair roads, railways and water supplies with reasonable efficiency and speed. After the raid of 10 March bomb-gouged roads, torn pipes and twisted tram lines took much longer to repair and in some cases attempts at reconstruction were abandoned. In the immediate aftermath of the raid thousands of soldiers combined with volunteers to clear away wreckage and retrieve corpses, but morale was so shaken and numbers were so great that there was very little coordination between repair crews from water, gas and electricity companies, and work often had to be repeated. Perhaps the best indication of the trauma suffered by Tokyo people lay in the fields I of electricity and public transport. In Japan earthquakes were usually followed by energetic reconstruction, but after 10 March pessimism halted some activity. Tramway managers refused to repair tracks in some areas as people no longer lived there, and electricity supplies were similarly not restored where the homes of consumers had been destroyed. This temporary despair in private and municipal organs was also found in high circles of civil defence administration. Here there was a recognition that all previous programmes had been quite inadequate.53 Up to this date the police and auxiliary services had operated civil defence schools for training organisers, but following the great air raid virtually all activities in these schools were abandoned, and training ceased.<sup>54</sup>

1:

Despite dismay on the part of civil defence planners, the government began unprecedented action to relieve suffering and to minimise further casualties. The cabinet created two special committees to co-ordinate relief operations. Emergency stocks of dried tuna fish were distributed as emergency rations to citizens in large cities, while important industrialists attempted to raise fifty million yen for rehousing and relief operations. The Emperor made a personal contribution of fifteen million yen to this fund and government and private relief was co-ordinated.<sup>55</sup> Perhaps the most important measures taken in the aftermath of the incendiary raid were redoubled efforts to accelerate evacuation and the closing of virtually all schools to allow pupils to work in farms and factories.

The dramatic impact of the raid on government policy is clear from one of the most ambitious schemes mooted in these gloomy days. It was proposed that some of the million homeless people of Tokyo should be evacuated to Hokkaido to bring land back into cultivation. In a time of increasing food shortage there was an

attractive if superficial logic in the scheme, but one is tempted to think that the Japanese state machine was too disheartened, exhausted and uncoordinated to carry out any major complex piece of social planning at this time. Even ignoring such general hypotheses for the failure of the scheme, it should be noted that the bulk of the people who were to make up this new work force had no agricultural training and were unwilling to move away from all relatives and friends.<sup>56</sup>

The success of the expanded evacuation scheme was based upon the obvious tensions and strengths of Japanese society as much as upon decisive government action. Not only did the destruction of lives and homes create immediate needs, but the obvious inability of the government to protect the capital had been dramatised in an | unprecedented way. The spontaneity of the desire to leave Tokyo is clear not only from the vast numbers who co-operated with government policy, but in the flight of many essential members of Tokyo's medical services from the city. The number of nurses and doctors fell drastically immediately after 10 March and this was attributed to flight rather than to casualties. Besides fear and need, the rural roots of Tokyo's population made evacuation succeed without complex arrangements in the provinces. Over 90 per cent of refugees found homes with relatives in nearby prefectures so that the unwilling acceptance of refugees as a result of government order was almost unknown.57

The casualties of the air raid were clearly vast, but the precise statistics are extremely difficult to establish. The Tokyo municipality estimated that over 76,056 people had died as a result of the bombing, while the fire department estimated some 82,790 lost. Although American researchers accepted the higher of these figures, it seems likely that they may be inadequate. When unfound corpses and information from relatives is taken into account it may well be that over 90,000 people may have perished in the two hours of the raid.<sup>58</sup> At least 40,000 injured were reported to the authorities and the margin between these figures indicates the impossibility of escaping from the blaze.<sup>59</sup>

The casualties inflicted in the raid were probably greater than those resulting from the great earthquake of 1923 for which the estimated losses in Tokyo were 73,000. The casualties were approximately half of those suffered by Hiroshima in the attack of 6 August, but possibly higher than those inflicted on Nagasaki three days later.<sup>60</sup> This destruction of life on a scale similar to that of the second atomic bomb clearly had a deep impact on Japanese morale and diverted energy and resources from military activities.

For the United States Air Force the raid provided the spectacular

I

success that it had hoped for. The conflagration and damage had exceeded all expectations and the planes lost were a mere 4 per cent of the total, lower losses than those suffered on most earlier strikes. General Le May's tactics had been justified, and his reputation and that of the B29 were, in a sense, secure.

Some would argue that the element of surprise was so important to the success of this raid that it would have been quite impossible to warn the population of Tokyo by leaflet or broadcast of the coming attack. But one's analysis of the raid makes this a dubious if not invalid argument. Japanese resistance may have been unexpectedly light. The United States air force may have lacked perfect intelligence on aspects of Japanese anti-aircraft batteries, but there must have been a high degree of confidence in Japan's inability to resist for the bombers to have carried no ammunition and for so many aircraft to have been risked in the enterprise. Furthermore, test raids had already been carried out which exposed the vulnerability of central Tokyo to enemy attacks. Perhaps two factors were uppermost in impelling the Twentieth Air Force to use this tactic in the closing months of the war. Vast amounts of money had been invested in the B29 fleet. It existed to be used, not to be kept inactive while [ marginal considerations of morality were debated among army, military and civilian leaders. In addition, the whole character of Japanese warfare, with defiance of international conventions and suicidal resistance, had blunted moral sensibilities, so that civilian losses were no longer a serious consideration in a total war where all adults played some role in military production. Military leaders facing governments who did not evaluate defeat in the restricted conventional terms of the nineteenth century perhaps had little choice but to attack the general morale of an enemy, and in most situations this involved attacks on the civilian section of the population. Japanese writers refer to non-combatants suffering at the hands of American bombers, 61 but in a sense it was the Japanese government more than any other which had developed the concept of a samurai nation devoted totally to supporting military success. One cannot escape the further speculation that in a war in which both parties had at various times declared the enemy to be inferior or subhuman, it became reasonable to value one's own nationals more highly than those of one's enemy and to seek any possible way to abbreviate the war and restrict one's own casualties. One further charge which demands examination is the Japanese accusation that this attack was immoral because it was indiscriminate. It clearly made no attempt to discriminate between civilian and military targets absolutely, but Japanese bombers had bombed civilian targets in China with equal lack of moral fastidiousness. Some

might respond, with justice, that the West which claimed a superior morality should have made at least slightly greater efforts to avoid the excessive civilian losses of the Tokyo attack.

Japanese charges have recently tended to move away from the generalities of the raid to particular excesses of action against the civilian population. One eye-witness claims that gasoline was dropped like rain upon the blazing city, but this seems unlikely as the napalm bombs used would seem to be an even more effective weapon. A more serious allegation is that Superfortresses machinegunned civilians escaping from their fire-stricken homes. If as American writers claim the bombers were carrying no ammunition this was clearly impossible, but one cannot evaluate rival evidence on this point without access to confidential United States documents.

If one is to venture to pass judgement on military policy towards civilian populations in the Pacific War it is impossible to refrain from some mention of the policy of the Japanese towards their own civilians. The time and effort they directed towards air-raid prevention was surely wholly inadequate and the failure to evacuate Tokyo with more urgency, and to devote more resources—when they were still available—to shelters, seems to show culpability of a high order. That rulers chose their own prestige before the welfare of their own citizens is perhaps more culpable than the lack of concern of an air commander with enemy casualties.

Whatever the findings of future researches it is certain that the raid of 10 March was a crucial event in the war experience of the Japanese people. The almost total closing of schools, the mass evacuation and the abandonment of civil defence training are but a few examples of the vital impact it had on the policies of a government drawn irresistibly towards disaster.

131

- 41 Asahi Shinbun (11 March 1945); Craven and Cate, op. cit., pp. 615-16.
- 42 Field Report Covering Air-Raid Protection and Allied Subjects, Tokyo, p. 183.
- 43 Craven and Cate, op. cit., p. 617.
- 44 Saotome Katsumoto, op. cit., in Asahi Shinbun (18 July 1970).
- 45 Field Report Covering Air-Raid Protection and Allied Subjects, Tokyo, p. 58.
- 46 Ibid., p. 77.
- 47 New York Times (11 March 1945).
- 48 New York Times (10 March 1945).
- 49 New York Times (11 March 1945).
- 50 Field Report Covering Air-Raid Protection and Allied Subjects, Tokyo, p. 183.
- 51 Ibid., p. 160.
- 52 Ibid., loc. cit.
- 53 Ibid., pp. 90-1.
- 54 Ibid., p. 169.
- 55 Ibid., p. 161.
- 56 Ibid., p. 156.
- 57 Ibid., p. 155.
- 58 Saotome, op. cit., p. 202.
- 59 Field Report Covering Air-Raid Protection and Allied Subjects, Tokyo, p. 3.
- 60 Casualty statistics are very difficult to evaluate. The problem is briefly discussed in Hayashi, op. cit., p. 416, and Saotome, op. cit., p. 190.
- 61 Hayashi, op. cit., p. 404; Tōkō Kūshū O Kiroku Suru Kai, op. cit. (Foreword); Saotome, op. cit., p. 178.
- 62 Saotome, op. cit., p. 62.
- 63 Ibid., p. 68.

#### Chapter 7

- 1 Basic biographical information concerning Matsui Sumako is taken from Toita Kōji, *Joyū no Ai to Shi* (Kawade Shobō, 1963).
- 2 Toita, op. cit., pp. 28-30. On the fighting in 1868, see the chapter by C. D. Sheldon, pp. 27-51.
- 3 Ozaki Hirotsugu, Joyū no Keizu (Asahi Shinbun-sha, 1964), p. 99.
- 4 Matsui Sumako, *Botanbake* (Shinchō-sha, 1919), pp. 6–7. She later claims that she did make an effort to improve (pp. 12–13). This autobiography was originally published in 1913. The edition used here was a reprint issued at the time of Matsui Sumako's suicide.
- 5 Ibid., pp. 48–50.
- 6 Matsumoto Kappei, Nihon Shingeki-shi (Chikuma Shobō, 1967), p. 227.
- 7 Contraction of venereal disease from the husband was a common problem for wives in Meiji and Taishō Japan. See Fukuchi Shigetaka, *Kindai Nihon Josei-shi* (Sekka-sha, 1963), pp. 75, 97-8.
- 8 Quoted in Toita, op. cit., p. 41.
- 9 Nangō Terumi, Matsui Sumako (Bun'ei-sha, 1968), p. 55.
- 10 By Toita, op. cit., p. 43.
- 11 Matsui, op. cit., pp. 36-44.
- 12 A small ceremony took place, but the 'marriage' was not registered. See Ozaki, op. cit., p. 102.
- 13 Toita, op. cit., p. 43.
- 14 Ibid., p. 44.
- 15 Shingeki history of this period has been admirably documented by Akiba Tarō, *Nihon Shingeki-shi*, 2 vols (Risō-sha, 1955). It is also discussed in this volume in the contribution by A. Horie-Webber, pp. 147-65.

- 16 An earlier experiment—a medical school called Saiseigakusha—had in 1884 encountered problems similar to those of Bungei Kyōkai. Fukuchi, op. cit., p. 75.
- 17 Toita Kōji, Shingeki no Hitobito (Kadokawa Shinsho, 1954), p. 53.
- 18 Yamada Ryūya and Yoshida Kōsaburō in Toita Kōji, *Taidan Nihon Shingeki-shi* (Seia-bō, 1961), pp. 55-6.
- 19 Quoted in Ozaki, op. cit., p. 118.
- 20 Quoted in Toita, op. cit. (1963), pp. 81-96.
- 21 Fukuchi, op. cit., pp. 81-3.
- 22 Information on the Seitō movement is mainly taken from Ide Fumiko, Seitō (Kōbun-dō, 1961).
- 23 Ibid., pp. 57–9.
- 24 Ibid., pp. 60-1.
- 25 Matsui, op. cit., pp. 181-2.
- 26 Imai Seiichi (ed.), 'Taishō Demokurashī', *Nihon no Rekishi*, Vol. 23 (Chūō Kōron-sha, 1966), pp. 110-11. The extra scene is quoted in full in Toita, op. cit. (1963), pp. 96-7.
- 27 Kawatake Shigetoshi, Shingeki Undō no Reimeiki (Yūsankaku, 1946), p. 276.
- 28 Ibid., p. 278.
- 29 Matsui, op. cit., p. 183.
- 30 Ibid., p. 184.
- 31 Ide, op. cit., p. 32.
- 32 Matsui, op. cit., pp. 158-64.
- 33 Tōkyō Asahi Shinbun (6 January 1919).

### Chapter 8

- 1 Tokyo Shinbun (16 April 1950) (Shingeki Nendaiki, Vol. 3, p. 192).
- 2 'Gekidan Tampō', Higeki Kigeki (November 1971), p. 69.
- 3 Tsuda, 'Shingeki no Daidokoro', Higeki Kigeki (April 1971), p. 14.
- 4 Ibid., pp. 13-16. (See also Asahi Shinbun, Yükan (1 September 1971), p. 7.)
- 5 Ibid., pp. 14–15.
- 6 Ibid., p. 16.
- Ibid., p. 15. (See also Asahi Shinbun, Yūkan (31 August 1971), p. 7.)
- 8 Asahi Shinbun, Yūkan (20 August 1971), p. 6. The categories in the questionnaire were as follows: (1) I intend to participate positively in the activities and management of the gekidan; (2) I have the intention, but I may not be able to do so fully because of my present personal circumstances; (3) As for the activities of the gekidan, it will suffice for them to be reported to me at the general meetings; (4) I have lost my grip on the meaning of belonging to Mingei; and (5) I want to resign from the gekidan.
- 9 Asahi Shinbun, Yükan (25, 30 August 1971, 7 October 1971), resp. p. 7; Asahi Shinbun (25 December 1971), p. 3.
- 10 Asahi Shinbun (28 October 1971), p. 3.
- 11 Ibid., Yūkan (7 April 1971), p. 9.
- 12 Ibid. (28 September 1971), p. 9; see also 'Haiyū Shōgekijō no Kaisan', Higeki Kigeki (December 1971), p. 54.
- 13 Asahi Shinbun, Yūkan (22, 24 December 1971), resp. p. 9.
- 14 Kawamoto, 'Gekidan Tanpō-Mingei', Higeki Kigeki (November 1971),
- pp. 72-3; Kōchi, 'Gekidan Tanpō-Haiyu-za', Higeki Kigeki (November 1972),
- pp. 65-6; see also Asahi Shinbun, Yükan (7 October 1971), p. 7.
- 15 See the references given in notes 9, 10, 11, 13 and 14 above; 'The Tottering Ideals of Shingeki', Asahi Shinbun, Yūkan (17 December 1971).

nominal Taisei Yokusankai endorsement must have been a fairly inflated figure in terms of real success.

#### Chapter 6

The amplest account appears in J. K. Fairbank, E. O. Reischauer, A. M. Craig, East Asia. The Modern Transformation (Tokyo, 1965), p. 108; and G. R. Storry, A History of Modern Japan (London, 1960), p. 227. Hugh Borton, Japan's Modern Century (New York, 1955), p. 384 gives a briefer mention. J. W. Hall, Japan, from Prehistory to Modern Times (Tokyo, 1971), p. 347, E. O. Reischauer, Japan the Story of a Nation (previously entitled Japan, Past and Present) (Tokyo, 1971), p. 214, and W. G. Beasley, The Modern History of Japan (London, 1963), provide the briefest versions of all. Hall provides the estimate of '100,000 deaths'; Fairbank, Reischauer and Craig state that 'over 100,000' were killed. Reischauer mentions that two great raids on Tokyo together took 'well over 100,000 lives'. The second raid referred to here is probably that of 25 May 1945 which is estimated to have destroyed 16 8 square miles of the city.

2 Ishida Takeshi, Hakyoku to Heiwa (1941-52) (Catastrophe and Peace), Nihon Kindaishi Taikei (Tokyo, 1968), Vol. 8; Tōyama Shigeki, Imai Seiichi, Fujiwara Akira, Shōwa shi (Shōwa History) (Tokyo, 1959); Inoue Kiyoshi, Nihon no Rekishi (History of Japan) (Tokyo, 1966), Vol. 3, p. 205.

3 Katō Hidetoshi, Imai Seiichi, Shiota Shōbei, Usui Katsumi, Itō Mitsuharu, Shōwa shi no Shunkan (Moments of Shōwa History) (Tokyo, 1966), Vol. 2, p. 104.

4 Hayashi Shigeru, Taiheiyō Sensō (The Pacific War), Nihon no Rekishi (Tokyo, 1967), Vol. 25, pp. 403-8.

Kamishima Jirō, Katō Hidetoshi, Hateshinaki Sensen (The Endless Front), Nihon no Hyakunen (Tokyo, 1967), Vol. 3, pp. 307-13.

W. F. Craven and J. L. Cate (eds), The Army Air Forces in World War II, Vol. 5: The Pacific-Matterhorn to Nagasaki June 1944-August 1945 (Chicago, 1953) (hereafter referred to as Craven and Cate), p. 639. Referring to the raid of 25 May 1945: 'The attack was, however, highly successful. Photos showed that the fires kindled by 3,262 tons of incendiaries had destroyed 16.8 square miles, the greatest area wiped out in any single Tokyo raid, though the attack of 9 March had accomplished almost as much with about half the bomb weight.'

7 For example, the United States Strategic Bombing Survey (Pacific War), The Effects of Strategic Bombing on Japanese Morale (Washington, 1947), p. 3. 'The mass movement from the cities began after the great fire raids on Tokyo in March 1945.'

8 Although Tokyo's Metropolitan government produced a detailed account of the city's war damage over twenty years ago, that is, *Tōkyō-to Sensai shi* (A Record of War Damage in Tokyo Metropolis) (1953), organised attempts to collect and correlate material relating to Tokyo's air raids only gained momentum during the past four years. These activities have been centred on the Tōkyō Kūshū o Kiroku Suru Kai (The Society for Recording Tokyo's Air Raids), one of whose members, Saotome Katsumoto, has written the only book devoted to the raid of 10 March 1945: Tōkyō Daikūshū (The Great Tokyo Air Raid) (Tokyo, 1971).

9 As yet there is no comprehensive social history of Japan during the Pacific War and no integrated study of government social policy in the period.

10 'The East China airfields, constructed with so much back-breaking labour, and at considerable American expense, were overrun by the enemy. As the

Americans abandoned them one by one, they blew up the expensive equipment and valuable stores brought in ton by ton, by American planes over "The Hump" of the eastern spur of the Himalayas. By mid-September 1944, Operation Icho-Go had achieved its objectives.' O. Edmund Clubb, *Twentieth Century China* (New York, 1964).

11 Craven and Cate, op. cit., p. 609.

12 General Curtis E. LeMay and MacKinlay Kantor, Mission with LeMay (Garden City, New York, 1965) (hereafter referred to as LeMay), p. 329; Craven and Cate, op. cit., p. 101.

13 LeMay, op. cit., p. 345; Craven and Cate, op. cit., p. 576.

14 Craven and Cate, op. cit., p. 101.

15 Ibid., p. 573.

16 Ibid., p. 571; LeMay, op. cit., pp. 347-8.

17 Craven and Cate, op. cit., p. 608.

- 18 Ibid., p. 573; Tökyö Küshü O Kiroku Suru Kai (The Society for Recording the Tokyo Air Raids), Tökyö Daiküshüten (The Great Tokyo Air Raid Exhibition), Booklet (Tokyo, 1972), p. 4.
- 19 Craven and Cate, op. cit., p. 611.

20 Ibid., p. 608.

21 Saotome, op. cit., p. 202.

22 For example Hayashi, op. cit., p. 404.

- 23 Craven and Cate, op. cit., p. 614; New York Herald Tribune (11 March 1945); New York Times (10 March 1945).
- 24 Craven and Cate, op. cit., pp. 613-14; LeMay, op. cit., p. 349.

25 Tõyama, Imai, Fujiwara, op. cit., p. 188.

26 For the limitations of Japanese defences see: Craven and Cate, op. cit., p. 613; LeMay, op. cit., pp. 346-7; United States Strategic Bombing Survey (Pacific War), The Strategic Air Operations of Very Heavy Bombardment in the War Against Japan (Twentieth Air Force) (Washington, 1946), pp. 19-21.

27 Kindai Nihon Sögō Nempyō (A Comprehensive Chronology of Modern

Japan) (Tokyo, 1968), p. 274.

28 United States Strategic Bombing Survey (Pacific War), Field Report Covering Air-Raid Protection and Allied Subjects, Tokyo, Japan (Washington, 1947), pp. 5-8.

29 Ibid., pp. 14-18.

30 Ibid., p. 92.

31 Saotome, op. cit., p. 19.

- 32 Field Report Covering Air-Raid Protection and Allied Subjects, Tokyo, p. 78.
- 33 Ibid., p. 6.

34 Kindai Nihon Sōgō Nempyō, p. 336.

- 35 Accounts of evacuation can be found in Tökyō-to, Tōkyō-to Sensai shi, pp. 177-251; Field Report Covering Air-Raid Protection and Allied Subjects, Tokyo, pp. 151-9.
- 36 Field Report Covering Air-Raid Protection and Allied Subjects, Tokyo, pp. 137-45.

37 Hayashi, op. cit., p. 403.

38 Fire prevention is described in: Field Report Covering Air-Raid Protection and Allied Subjects, Tokyo, pp. 71-4.

39 M. Amrine, The Great Decision, the Secret History of the Atomic Bomb

(London, 1960), pp. 77-8.

40 Saotome Katsumoto, 'Sangatsu Tōka Shitamachi Daikūshū' (10th March, the Great Shitamachi Air Raid'), in Asahi Shinbun (Tokyo edition) (18 July 1970).