



HAL
open science

The Battle of Shanghai (January–March 1932): A Study in the Space-time of War

Christian Henriot

► **To cite this version:**

Christian Henriot. The Battle of Shanghai (January–March 1932): A Study in the Space-time of War. Journal of Military History, 2021, 85 (1), pp.76-94. halshs-03253428

HAL Id: halshs-03253428

<https://shs.hal.science/halshs-03253428>

Submitted on 16 Jun 2021

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

The Battle of Shanghai (January-March 1932)

A study in the space-time of war

Christian Henriot
Aix-Marseille Université, IrAsia

The Battle of Shanghai in 1932 lasted five weeks and left 8,300 soldiers killed and 11,700 wounded in combat, tens of thousands of civilian casualties, and hundreds of thousands of displaced refugees in the fighting area. The most vibrant urban district of the Chinese municipality — Zhabei — was left in ruins, with about one third of its housing gone, while the main towns and scores of villages in the north of the city were badly damaged or scorched to the ground. The short-lived conflict went down in history almost as a mere incident — this is how the Japanese authorities chose to label it (*shijian/shikan*) to tone down the grim reality of what actually was a full war. The term war, however — more precisely “Song-Hu zhanzheng”, the Shanghai-Wusong War — remains the standard name in Chinese history and memory. Yet the significance of the 1932 Battle has by and large been lost. This is in part because it was overshadowed by the second “Song-Hu zhanzheng” battle that took place in the city at the onset of the Sino-Japanese conflict five years later. But it also reflects a bias and an imbalance in Western perspectives of what constitute significant conflicts.

The 1932 battle indeed pales before the scope and the duration of the hostilities in 1937, and above all its astounding level of casualties and destruction. The decision by Jiang Jieshi to take a stand in the Shanghai area cost the Chinese army most of its best units and officers, with more than 250,000 casualties.¹ Whereas the 1937 Shanghai Battle features in several books, the historical footprint of the 1932 Shanghai Battle in historical research remains very light.² It does appear as an « incident » that paved the way to or forecasted the full-fledged conflict that broke out in the summer of 1937. I

¹ Rana Mitter, *Forgotten Ally: China's World War II, 1937–1945* (Boston ; New York: Mariner Books, 2013), 107; Yang Tianshi, "Chiang Kai-shek and the battle of Shanghai and Nanjing", in Mark Peattie et al. (eds), *The Battle for China : Essays on the Military History of the Sino-Japanese War of 1937-1945* (Stanford: Stanford University Press, 2011), 143–53.

² Mitter, *Forgotten Ally*; Mitter, *China's War with Japan, 1937-1945. The Struggle for Survival*. (London: Allen Lane, 2013); Benjamin Lai, *Shanghai and Nanjing 1937: Massacre on the Yangtze* (Oxford : Ospery Publishing Ltd., 2017).

will argue in this paper that the 1932 Battle was indeed a full-scale conflict. It was not a rehearsal of the more serious hostilities to come — unless one subscribes to a deterministic or teleological view of history, no one, including on the side of the Japanese, could foresee the turn of events that led to the Sino-Japanese War in 1937. Yet, the Shanghai Battle in 1932 was of utmost importance for the Japanese army. It provided the canvass and the matrix on which it built its strategy and military operations in 1937. Some of the very same divisions (9th, 11th) that fought in 1932 came back five years later.

Few scholars have studied the 1932 Shanghai Battle in earnest. I must have been one of the first to have examined closely this conflict in the early eighties, even if my focus was less on the battle itself than on its impact on the urban and rural districts of the Chinese municipality engulfed in the war.³ Another facet of my interest was the social consequences of fighting in terms of political mobilization and organization of rescue to the civilian population under duress. Jordan has produced the most extensive study of the Shanghai Battle in 2001.⁴ While he addressed in detail the military dimension of the conflict, his emphasis was much more on its political and diplomatic ramifications. Jordan highlighted the military significance of the conflict, but only within the Chinese context and in relation to the Sino-Japanese War in 1937.⁵ In Chinese historiography, there is a whole spate of works though most belong to the genre of popular patriotic history that add little to the books published in the immediate aftermath of the conflict.⁶ Very few historians have taken this battle as an object of historical inquiry, and a political perspective dominates in these writings.⁷ Using a different angle,

³ Henriot, *Shanghai, 1927-1937: municipal power, locality, and modernization*, chap. 4.

⁴ Donald A. Jordan, *China's Trial by Fire: The Shanghai War of 1932* (Ann Arbor: University of Michigan Press, 2001).

⁵ Jordan, 235–36.

⁶ Hua Bai, *Yi Er Ba - Song-Hu Kangzhan* (Shanghai: Da cheng chu ban gong si, 1948); Song-Hu jingbei silingbu, *Yi er ba de yi xie jinianpin* ([Shanghai]: Shangwu yinshuguan, 1933); *Yi er ba guochi tongshi*, vol. 9, (Hubei: Hubei shengli minzhong jiaoyuguan, n.a.); Wenzhi Wang, *Yi Er Ba* 一二八 (n.a.: Zhengzhong shu ju , 1938); Xiong Yansheng, “Yi jia Riben baozhi bi xia de shijiu lujun,” *Dang'an yu shixue (Archives and History)*, no. 3 (1995); Wu Lusun, *Yi er ba de huiyi he jiaoxun* (Guangzhou: Guangrong chubanshe, 1938); Wang Gongliu, *Yi er ba Xuezhuan Riji* (Shanghai: Jingwei shudian, 1933).

⁷ Song Jiapei, *Yi er ba Song-Hu zhanzheng: geming lishi gushi* (Beijing: Tongsu duwu chubanshe, 1957); Liao Dawei and Chen Jinlong, *Qinhua rijun de laizi: Yi er ba, ba yi san Song-Hu zhanzheng* (Shanghai: Shanghai shehui kexueyuan chubanshe, 2002).

however, Zhang Xiaochuan has examined the social and economic impact of the battle through his well-researched social history of Zhabei, the main urban district that came under fire in 1932.⁸

Revisiting the 1932 Shanghai Battle

The importance of the 1932 Shanghai Battle came as a late realization. Like most historians with an interest in this period, I tended to see it as a local conflict situated in a specific time and space, with little bearing on ulterior events. My interest in the history of this conflict changed quite radically when I came across a set of documents — all original copies — that a Japanese scholar, Makoto Kinouchi, kindly provided to me.⁹ This set of documents, which had been around for a long time but was hard to come by, changed my view for two reasons. First, their origin and their very nature pointed explicitly to the extreme importance of the Shanghai Battle for the Japanese army. Second, the extremely rich materials these documents contained opened the way for a new approach, as I present below, with an emphasis on the spatial dimension of the conflict and a renewed interpretation of the conflict.

The set of documents I rely on in this paper is *Shanghai fukin no kaisen : tsuketari Shanghai jiken ni okeru shinagun no kōdō* [The military campaign in the Shanghai area: with an appendix on Chinese military action in the Shanghai Incident]). The set includes a thick volume of 1,300 pages that detail the military operations that the Japanese army conducted throughout the conflict, a small volume of 20 statistical tables and a cartographic collection of 77 maps and figures.¹⁰ These documents were

⁸ Zhang Xiaochuan, *Jindai shanghai zhabei jumin shehui shenghu* (The social life of the common people of Zhabei in modern Shanghai) (Shanghai: Shanghai cishu chubanshe, 2009).

⁹ I wish to thank Makoto Kinouchi for bringing this set of materials to my attention and for sharing them generously with me. The whole set of documents is available on the Virtual Shanghai platform in digital format. Kinouchi is the author of *Shanghai gaido mappu* (Guide maps of Shanghai) (Tokyo: Zōho kaiteiban, 2011).

¹⁰ Sanbō Honbu. *Shanghai fukin no kaisen : tsuketari Shanghai jiken ni okeru shinagun no kōdō*. Vol. 16. Manshū Jihen shi. [Tokyo]: Sanbō Honbu, 1935. The set actually includes two volumes. The second volume was devoted to amphibious and landing operations. *Shanghai fukin no kaisen: jōriku sakusen*. Vol. 17, [Tokyo]: Sanbō Honbu, 1935. All my efforts to locate a copy anywhere in Europe, the U.S., and Japan have proved fruitless.

produced in 1935 by the Strategic Headquarters (Sanbō Honbu) of the Japanese Army. They were part of a larger series entitled “China Incident” that studied the two instances of Japanese military operations in China, the 1931 autumn campaign in Manchuria and the 1932 Shanghai Battle.¹¹ Although these two successive operations represented two separate events, the Japanese Command lumped them together under the « China Incident » misnomer. I reviewed the Manchuria volumes, but I did not include them here since my reading confirmed the hypothesis that these were two disconnected military events, even if they came under the same umbrella and book series.

Why is this set of documents especially significant? The fact that the Japanese Command chose to elaborate this very rich compilation should alert us to the importance of these conflicts for the Japanese military authorities. I will focus on the materials on Shanghai, but my argument extends to the whole collection of documents. The first reason why it mattered for the Japanese military command was that it was the first instance of a military operation outside of Japan since the Russo-Japanese War (1903-1904) and the siege of Qingdao (August-November 1914). The case of Manchuria must have borne a lot of resemblance to the previous conflict with Russia: it was the same terrain and the troops were already present on site. The major differences were the nature of the opponent — weak local Chinese troops —, the short duration of the conflict, and the far more clement weather. Yet, it was a conflict that involved an entirely new generation of weapons, especially armored vehicles and planes. The Japanese Command was very keen on drawing the lessons from the experience and performance of its troops in combat, as well as from the use of the new weaponry and other technologies.¹²

¹¹ Rikugun. Sanbō Honbu. *Manshū jihen shi* (History of the Manchurian Incident) (Tokyo: Sanbō Honbu, 1933-1940), 24 volumes.

¹² The Japanese produced a specific volume on the use of planes during the conflict in Manchuria. Rikugun. Sanbō Honbu. *Manshū jihen ni okeru hikōtai no kōdō* (The action of the air force during the Manchuria incident) (Tokyo: Sanbō Honbu, 1934).

While the Manchuria campaign offered a new reading of an old story, the Shanghai Battle definitely constituted a completely new ground. This was the first time the Japanese army experienced fighting in an urban environment, which proved extremely treacherous, as I shall discuss below. It had no previous experience of such combat conditions and the Shanghai Battle provided ample materials on military tactics, the deployment of troops, the use and impact of weapons, and the management of civilian populations (both Japanese and Chinese, though very differently). When the fighting moved away from the city itself, it was again a new and unknown ground. In Manchuria, the troops fought on dry hard land where moving soldiers and weapons met with little hindrance thanks to roads and railway lines. Outside Shanghai, the nature of the land was that of a delta area, mostly soft alluvial soil crisscrossed by hundreds of canals and arroyos. The topography imposed a thorough rethinking of military operations to meet these conditions.

The third reason why the Shanghai Battle mattered was undoubtedly the use of new military technology. The previous instance of military technology in action was W.W.I. There had been a tremendous transformation of weaponry since then, with three main elements: armored vehicles (especially tanks), planes, and naval carriers. It was of the highest importance for the Japanese Command to examine seriously what these technologies brought into play, how they had been used on the ground, and what their limitations were depending on the nature of the battlefield. Beyond the Japanese Command, all the military attachés in Shanghai followed very closely the conflict with the same interest in the weapons used by the Japanese and their degree of efficiency.¹³ The Shanghai Battle was a showcase of the new conditions of war for contemporary observers, which the Japanese Command turned *ex post facto* into a thorough case study. These volumes were not meant to populate library shelves, but to serve as study materials in Japanese military academies.

¹³ See Ronald Campbell Penney (Major general), "Shanghai area war diary", GB0099, Liddell Hart Centre for Military Archives, King's College; "Despatches", War Office, WO 106/5564 ; H.Q. Shanghai area, Jan-Jun 1932, Appendix E Situation reports, WO 191/49, National Archives (U.K.); Dossier 2 "Conflits sino-japonais 1932-33", 11H55, 11H57; Dossier 3 "Incidents sino-japonais 1932", 11H59, Service historique de la Défense.

The set of documents produced on the Shanghai Battle is particularly meaningful for several reasons. First, it highlights the high degree of professionalization and organization of the Japanese army. All along, it kept a track record of all the military operations by the various units down to the level of regiments or companies: where they were, what they did, what they achieved, how much ammunition they spent, how many casualties they suffered, etc. Each operation is described in detail based on these records with precise time stamps. The Japanese military headquarters prepared detailed battle plans, which the fighting units implemented on the same timeline at their level in their respective locations. The advances and the setbacks are all documented. The rich cartographic materials that support this study of military campaign proved invaluable to make sense of the dense and dry text of the main volume. It made the conflict almost real on the ground.

Second, through the Shanghai Battle the Japanese Command garnered a wealth of knowledge on fighting in the specific conditions of an urban environment and on the challenging ground of the Shanghai area. It gained incredible knowledge on the geography and the topography in and all around the city, on local conditions of transportation, on logistics from Japan to Shanghai, on amphibious operations along the Huangpu River. The Japanese army had surveyed in detail the whole coastal regions of China, but this was the first time its troops were deployed on the ground, with first-hand access and experience, and the possibility to further document the whole Shanghai region¹⁴. Aerial photography, as I discussed below, was a key instrument of this knowledge building. In other words, the Shanghai Battle resulted in a cumulative process of fighting experience and military intelligence which endowed the Japanese Command with a much higher level of preparedness in case of another conflict. It took only five years before this knowledge was put to use.

Third, the Shanghai Battle was the first “modern” conflict where arms of massive destruction were used at a grand scale. The inter-war period — from a European perspective — exhibited a whole string

¹⁴ The 86 maps and visual documents are available on the Virtual Shanghai platform, Source Maps. Use keyword 1932SB. <https://www.virtualshanghai.net/Maps/Source> [Last accessed: 24 October 2019]

of conflicts, many in the form of rebellions in colonized countries, but none actually matched the level of the Shanghai Battle from two perspectives: the combined use of the whole range of military tactics (field campaign, urban warfare, amphibious operations), armed forces (army, air force, navy), and new weapons. The military operations during the siege of Qingdao in 1914, while significant from this perspective, represented a different tactical approach (siege) and involved a much narrower and quite experimental use of new technologies such as planes.¹⁵ Second, Shanghai was the first city subjected to modern warfare, with a massive civilian population caught in the line of fire. The Shanghai Battle had all the ingredients of modern warfare as it developed the various military theaters during and after W.W.II with increasing levels of technological sophistication and lethality for combatants *and* civilians. It prefigured the rise of total war and its frequent, if not systematic targeting of civilian populations. Whereas Guernica has remained in memory as the emblematic example of ruthless military violence, thanks to Pablo Picasso's famous painting, the inhabitants of Zhabei and the surrounding villages made this bitter experience first-hand before anyone else.¹⁶

Fourth, this set of documents provides historians with an irreplaceable source to decrypt the Shanghai Battle. It could be tempting to see these documents as a form of self-glorification or self-justification by the Japanese Command, tainted with propaganda. But even if there is some prose about the Japanese army's accomplishments and victory, the document was meant to serve as a concrete case study for the Japanese military academies and the Japanese Command. It is by and large a terse text with practical and descriptive content. It is about military operations on the ground that leaves no room for enthusiastic laudatory declarations. The detailed tables on weaponry and casualties were not meant for propaganda, but as a tedious accounting of cost in terms of equipment and human lives. There is some uncertainty on Japanese casualties, but as we shall see, it had to do with the initial phase of the fighting by the Japanese Navy.

¹⁵ Naoko Sajima et al., *Japanese Sea Power a Maritime Nation's Struggle for Identity* (Australia: Commonwealth of Australia, 2009), 38–39, 139–45.

¹⁶ Ian Patterson, *Guernica and Total War* (Harvard University Press, 2007); Gordon Thomas, *Guernica: The Crucible of World War II*. (New York: Ballantine, 2014).

What do these materials bring into play for our understanding of the conflict? The main volume contains a meticulous description of the three waves of attack the Japanese army launched to get through the Chinese lines and, in a final mop up operation, to pursue and destroy the retreating Chinese units. All the materials in the set of documents (tables, maps) are organized along this timeline: First attack (20-22 February), Second attack (23-25 February), Third attack (26 February-1 March). The final phase unfolded on 2-5 March.

The Japanese compilation, however, does not cover the entire period of fighting. The conflict actually started on 28 January, when the Japanese marines made their initial movement into Zhabei, which triggered the fighting with the Chinese 19th Route Army. It also represents the time when the conflict was entirely centered on Zhabei. This leaves us basically with three weeks that are unaccounted for, except for a couple of maps. This reflects the overinflated view of the local Japanese expeditionary forces of their capacity to launch a sweeping military operation against largely misjudged and berated Chinese forces. Moreover, we need to insert in this timeline and indecisiveness of fighting the intervention by Western diplomats who negotiated a ceasefire on two occasions, on 4 February and 12 February, to bring rescue to the civilian population and to give a chance to negotiations between the contending parties.

The main challenge in using this source was to connect the information in the main text, the data in the statistical tables, the coded data on the maps, and to identify the locations where military events played out. We processed all the military maps — they came at different scales and levels of details — in GIS to build a cartographic database.¹⁷ This allowed us to record systematically the presence of any Japanese military units at a given point in time. The maps were all precisely dated. This operation

¹⁷ Initial work on the set of cartographic materials was done by two GIS specialists, Zhang Peiyao and Charlotte Aubrun. The latter was instrumental in the final processing and production of the maps in this paper.

involved decoding Japanese codification for military units.¹⁸ We also relied on a complete cartographic survey of human settlements in the whole Shanghai area based on a 1932 Japanese set of maps — prior to the conflict — which we had prepared previously.¹⁹ Finally, the connecting dots in the GIS database were the military units mentioned in the text, the statistical tables, and the maps. Although we had much less materials, we processed similar data on Chinese military units in the same way.²⁰ Altogether, we were in a position to reconstitute the battle plans of the Japanese army and to examine the main characteristics the conflict.

My argument in this paper is that the contending parties met with a difficult terrain that played to the advantage of the militarily disadvantaged Chinese troops and stalled Japanese battle plans and tactics, which the latter overcame only through a massive input of weaponry. In other words, the Chinese troops literally grounded themselves behind the city walls, then in the soft soil of the countryside to weather the firing power of the Japanese army. It took a massive effort and an incredible level of firing, shelling and bombing to eventually crush the Chinese troops. The Chinese strategy of a war of positions behind trenches, however, proved devastating in the end in view of the Japanese capability to muster modern equipment and troops in a war of movement. Although the Japanese were well versed into the use of trenches in warfare, in the course of the Shanghai Battle they adopted a strategy of movement of troops and guns, with the backup from heavy artillery and planes.

The Shanghai battle in space

¹⁸ « Guntai fugō » (Army code signal), Rikugunsho Dainikki, 1931, Jacar, https://www.jacar.archives.go.jp/aj/meta/imageen_C01001960400?IS_KIND=SimpleSummary&IS_STYLE=eng&IS_TAG_S1=InfoSDU&IS_KEY_S1=%E8%BB%8D%E9%9A%8A%E7%AC%A6%E8%99%9F& [Accessed 18 December 2018]

¹⁹ Our survey — “The distribution of towns and villages around Shanghai in 1932” — is based on a set of eight maps produced by the Land survey office of the Japanese Command. All eight maps are available on the Virtual Shanghai platform, Source maps, Map ID 217-224 (The originals can be found at Harvard University). <https://www.virtualshanghai.net/Maps/eAtlas?ID=1739>, [Accessed 25 October 2019]

²⁰ Songhu yu ri zhanshi (1932), 4-9; “Shijiu lujun kangri zhanyi zhenwang guanzuo jianli yi lan”, “Diwujun kangri zhanyi zhenwang guanzuo jianli yi lan”, *Song-Hu yuri xuezhān da huashi*, 3-17; *Lujun di bashiba shi Song-Hu kangri zhandou jingguo*, 93-176

The military conflict that unfolded in the first months of 1932 took place at a very critical moment. On the side of China, the National government had split up in the spring of 1931 following the house arrest of Hu Hanmin, an active proponent of constitutional government, under Jiang Jieshi's order.²¹ The factions opposing Jiang had established a rival national government in Canton. The invasion of Manchuria in September 1931 forced the contending political factions to put an end to their divisions and form a new unified government. Yet, as a way of protection, the Cantonese faction had obtained to have the Cantonese 19th Army stationed in Shanghai where most leaders resided. The 19th Army was imbued with a strong patriotic spirit. On the side of Japan, the invasion of Manchuria by the Guangdong Army had triggered a powerful wave of nationalism and all forms of protest and anti-Japanese boycott in Chinese cities. In Shanghai, the local authorities had walked a thin line between avoiding an outright conflict with the Japanese and accommodating the strident nationalist wave of protest.²² To no avail.

The Shanghai Battle actually unfolded in two steps. The first step was the initiative by the Japanese Navy to march into Zhabei on 28 January under the pretext to protect Japanese nationals. There was no reason for this military intervention. The Chinese municipality had accepted all the demands made by the Japanese consul and had full control of public order in the districts under its administration. There was no other reason for the Navy's move than the intention to launch a punitive action against the Chinese for their strident anti-Japanese stand in the city on the wake of the Japanese invasion of Manchuria. In parallel, the Navy was also eager to show its muscle under its veiled rivalry with the Army.²³ The Japanese attempt to move into Zhabei and push away the Chinese forces met with the resolute and unrelenting resistance of the 19th Army. The Chinese population in Shanghai by and

²¹ Hu Hanmin (1879-1936), an elder member of the Guomindang, opposed Chiang Kai-shek's military rule and lack of resistance to Japanese encroachments. He eventually joined the Cantonese faction in Guangzhou after his release from house arrest. Zhao, Suisheng. *Power by Design: Constitution-Making in Nationalist China*. University of Hawaii Press, 1996, 61.

²² Christian Henriot, *Shanghai, 1927-1937: Municipal Power, Locality, and Modernization* (Berkeley: University of California Press, 1993), chap. 4.

²³ Jordan, *China's Trial by Fire*, 39; Christian Henriot, *Shanghai, 1927-1937: Municipal Power, Locality, and Modernization* (Berkeley: University of California Press, 1993), 86.

large rallied around the soldiers of the 19th Army with moral, food, and medical support and engaged in voluntary labor to build stronger defenses.

In the first phase of fighting the Chinese troops used to their full advantage the particular features that the urban environment of Zhabei provided. The buildings offered protection and vantage points from where to shoot. The narrow streets could easily be blocked by barricades. They also hampered the progression of armored vehicles, especially tanks, and collapsing buildings under shelling and bombing made the streets even more impractical for these vehicles. In view of the mounting tension in the preceding weeks, the 19th Route Army had anticipated a military operation by the Japanese and set up defense installations. In particular, the railway line that ran along Zhabei and traced a boundary with Hongkou — the area where the Japanese Marines were garrisoned — formed an elevated belt behind which the Chinese soldiers were able to offer a stiff resistance. It became the first line of defense of the Chinese combatants. But even after succeeding in crossing over, the Japanese attackers were quickly bogged down.²⁴

The basic defense installations of the 19th Army and the dense habitat of the Zhabei District constituted a real death trap for the invading Japanese units. There were sand-bag barricades almost at every intersection. Combat at close range also meant that the Navy could not fully take advantage of its superior equipment. Its main weapon of choice to undermine Chinese defense was its air force.²⁵ Although the Chinese mustered a few planes at the beginning of the conflict, they were quickly outnumbered and routed by the Japanese pilots. Throughout the conflict, the Japanese had an open sky to themselves.²⁶ They took advantage of this superiority to pound repeatedly the Chinese lines,

²⁴ Sanbō Honbu. *Shanghai fukin no kaisen*, Map appendix, Map 3, Kōho hōmen kaigun rikusentai senkyō yōzu gaikenzu (Map of the fighting situation of the Japanese Navy and Army in Zhabei), 28 January-5 February 1932.

²⁵ “Hikōtai no kōdō”, Sanbō Honbu. *Shanghai fukin no kaisen*, 273-286. The collection on the Manchurian campaign includes two volumes entirely devoted to the role of the air force. Sanbō Honbu, *Manshū jihen shi*, vol. 19-20. On the development of Japanese naval air forces, see Peattie, Mark R., *Sunburst. The rise of Japanese Naval Air Power, 1909-1941* (Annapolis: Naval Institute Press, 2001).

²⁶ Christian Henriot, “Beyond Glory: Civilians, Combatants, and Society During the Battle of Shanghai,” *War & Society* 31, no. 2 (August 2012): 106–35.

with deadly effect, but still without making a decisive difference. The impact of bombing was far more critical for the civilian population, exposed to both the bombings and the fire that gutted their houses.

The staunch resistance by the Chinese troops defeated the *Blitzkrieg* that the Japanese Navy had candidly imagined and stalled its advance into Zhabei. There is no detailed record of this phase that played out in a limited theater of operations. The Navy did not keep or did not make public any records of its operation. In fact, this was probably the most lethal part for the Japanese who suffered about 1,000 casualties in two weeks (out of a total of about 3,000 casualties).²⁷ Clearly, the Japanese Navy had fully underestimated its opponent and could not get out of its predicament without the massive reinforcements the Japanese Army brought in. It was not prepared to meet the challenging combat conditions of urban warfare where streets and houses had to be conquered one by one. The rising toll of casualties must have also dampened the Navy's initial belief in a quick and victorious expedition.

The Japanese Command had to consider two options: to cut its losses and pull out its men to avoid further damage, or to rethink its tactics to overcome Chinese resistance. The first option, even if considered, meant admitting defeat and the inability of the Japanese military to beat a supposedly much weaker and less professional provincial army, in full view of Chinese, Japanese, and international media. The Japanese could not incur such a loss of face, especially in the context of their invasion of Manchuria and its investigation by the League of Nations (Lytton Commission).²⁸ The Japanese Command needed a clear-cut victory to buttress its political standing in the inevitable diplomatic negotiations that would ensue from both conflicts. The arrival of army reinforcements

²⁷ Jordan, *China's Trial by Fire*, 235. Casualties amounted to 2,240 according to the Japanese Command, Sanbō Honbu. *Shanghai fukin no kaisen*, 70, 79.

²⁸ Jordan, 211-212, 237-238. League of Nations, Commission of Enquiry into the Sino-Japanese Dispute. *Manchuria: Report of the Commission of Enquiry Appointed by the League of Nations* (Washington: United States Government Printing Office, 1932).

from Japan initially failed to change the situation. Upon the arrival of the first units there was a short-lived and unsuccessful attempt to dislodge the Chinese troops on 13 February through a joint assault by the Navy and the Army. It did not succeed in breaking down the Chinese lines. The failure of the 13 February joint assault resulted in the decision to call for more reinforcements and to organize a full campaign outside of the urban area.

The Japanese Command chose to move the conflict out of the city with the hope that warfare in open space would give its troops, armament and well-honed tactics a decisive advantage. The move would also enable the Japanese to outflank the entrenched troops in Zhabei from the north and cut their lines of communications and supply.²⁹ The lessons of the aborted invasion of Zhabei by the Navy and the unsuccessful assault on 13 February were not lost on the Japanese command. A new officer, Lieutenant general Kenkichi Uyeda (9th Army), was appointed commander of the Japanese forces along with a powerful military build-up. The Japanese troops positioned themselves strategically along the Huangpu River, with three main concentrations to prepare for a three-pronged assault³⁰ In the new campaign that started in the third week of February, it implemented very systematically the combined use of all the means at its disposal. This was a major turn of events that marked the entry of the Japanese army into modern warfare with complex coordinated military operations on the ground and in the air, with logistical support and protection by the Navy. The 1932 Battle had all the ingredients of the conflict that would play out five years later, with only two major differences, the size of the military units involved and the crucial role of a very effective Chinese air force. But whereas there is no documentation left on the 1937 battle plans, the 1932 conflict provides a precise and reliable canvass for a historical reading these operations.

The decision to transport the conflict out of the city changed the scale of the military operations. The theater of the campaign enlarged so much on both sides that new military units had to be involved.

²⁹ Sanbō Honbu. *Shanghai fukin no kaisen*, 101-124

³⁰ Sanbō Honbu. *Shanghai fukin no kaisen*, 54-55; *The China Press*, 13 February 1932; 16 February 1932

On the Chinese side, the central government reluctantly committed one of its best units, the 5th Army (60th & 61st divisions), as well several auxiliary units (Military Police, Customs) to back up and relieve the strained units of the 19th Army. On the Japanese side, the Navy transported the 24th Mixed Brigade and the 11th Division from Japan. These units had had direct fighting experience in Manchuria, some as far back as the Russo-Japanese War.

Table 1. Military units and manpower involved in the battle (around here)

The Japanese also reinforced their naval presence which gave them full control over the Huangpu River. There was no Chinese Navy to fend off the passage of the Japanese ships. Until then, the Japanese had relied on the sanctuary offered by the International Settlement to load off its reinforcements and equipment. With the extension of the conflict, however, the Japanese had to secure their access to the Huangpu riverbank and protect themselves from a possible attack from further north. The control of the riverbank was necessary to mount its amphibious operations and disembark troops at various points along the bank. It also served to establish a rudimentary airfield close to the fighting zone.³¹ The whole stretch of riverbank from the Point Garden at the easternmost tip of the International Settlement to Wusong became the new front line of the Japanese troops.

Except for Wusong where it took some fighting to repulse the stationed Chinese units, the Japanese advance proceeded with little incumbrance, save for the difficult terrain.³² Yet in this phase they could march along the main roads that led to the major towns in the area like Jiangwan, Dachang, etc. This is where the Chinese command had decided to establish advanced strongholds with a string of villages turned into reinforced points of resistance all along their defense lines (Map 1). In the weeks during which the Japanese were bringing in new troops, the soldiers of the 19th and 5th armies, with the help

³¹ Sanbō Honbu. *Shanghai fukin no kaisen*, 56.

³² Sanbō Honbu. *Shanghai fukin no kaisen*, 69. See also Map 3.

of coolies and peasants, had dug an elaborate network of trenches on a north-south axis from Zhabei to the Wusong Creek, five miles away. As Jordan argues, “many of the recently improved Chinese trench works through the expertise of German advisers, featured waterways used as moats. Most trenches were two meters deep, faced with brick, and covered with sheet iron to shield troops from bomb and artillery shrapnel.”³³

The first line of defense ran along the Hongkou Creek and caught up with other water streams all the way to the north. Because they expected a massive attack by the Japanese, the Chinese command also established two other major lines of defense, also on a north-south axis, as fall back positions in case the Japanese managed to break through the first line of defense. Eventually the Chinese system of defense formed an inextricable network of well-designed trenches, often behind water streams, with additional obstacles such as barbed wire fences and Frisian horses. It formed a sort of three-layer shield, with Jiangwan as a protruding spike (Map 1).³⁴

Map 1. Chinese defense lines (around here)

This system of defense proved extremely effective in defending Chinese positions. It offered protection from direct projectiles at the time of assaults, but also from shelling and bombing. Except in case of a direct hit, the soft alluvial soil literally absorbed the explosive power of the shells and bombs and reduced most of their explosive capacity. It minimized the collateral damage to the combatants and to the defense installations. The combined network of trenches and water streams made the transportation of equipment, ammunition, and canons by the Japanese very difficult. Field bridges had to be set up at every turn to allow safe passage to men, horses, guns and equipment. The Japanese soldiers often had to walk across the canals in very chilly water. Once they reached a

³³ Jordan, 141-142

³⁴ Sanbō Honbu. *Shanghai fukin no kaisen*, 75-78

Chinese defense line, they met with a well-protected firing line that proved daunting to take over.³⁵ It was a war of trenches, as in Verdun, but in a much more watery and treacherous landscape. As in Verdun, the Chinese troops could have held their position for a long time. It was very difficult to dislodge them without incurring a high level of casualties among the assailants.

Map 2. The distribution of Japanese troops (around here)

Map 2 indicates the positions of the Japanese units in the major phases of the conflict, from the initial assault in Zhabei to the final pursuit of the retreating Chinese troops in early March. From Zhabei where the Japanese Navy continued to hold its positions (blue), the conflict moved north with Japanese army units (light pink) progressing from the north of Shanghai, from the eastern end of the International Settlement and from Wusong, over the villages where the Chinese armies had established defense points, all the way to Jiangwan, the first major Chinese stronghold, where they had their first major engagement. Fighting was indecisive for a time until the Japanese troops broke through the Chinese lines (dark red) and went in pursuit of the retreating Chinese soldiers through the second and third lines of defense, then all the way to Yanjiaqiao (yellow). While this map provides an overview of the whole battlefield, it does not tell us how the Japanese troops progressed.

Map 3. The movement of Japanese troops

Map 3 provides an overview of the actual movement of the Japanese troops, not simply their distribution in space. The small dots show the units that remained in their location for only one day. The larger circles show where the Japanese units got bogged down when they met with fierce Chinese resistance. Except for the units that were stationed in the International Settlement pending their

³⁵ The difficulties that arose from fighting in such a landscape became the object of a specific study by the Japanese military. *Shanghai fukin suigō chitai ni okeru sakusen no kyōkun* (The lessons from fighting in the waterway belt near Shanghai) (Tokyo: Sanbō Honbu, 1932).

dispatch to combat, the larger circles give a good indication of where the action took place, with the prolonged fighting near Wusong and more evidently in the Jiangwan area. It confirms the rapid movement from the north of the city and from the Huangpu River to the main line of fighting around Jiangwan. Once the Jiangwan stronghold had fallen down, the Chinese defense lines became exposed to the final attack and crumbled. Thereafter, the movement of the Japanese units was swift and decisive.

Anatomy of a battle

What were the factors that played into the collapse of Chinese defense? The Chinese forces were defeated with a much higher level of casualties than their opponents. After 20 February the Nineteenth and Fifth armies suffered heavy losses. In four days, they lost seventy-four officers (36 percent of total casualties). In the first days of March, in just three days, fifty-eight officers (28 per cent of total casualties) died on the front. Among soldiers, the rate of casualty was even higher. In the eighty-eighth division (Fifth Army), 73 percent and 19 per cent of all officers and soldiers, respectively, were lost during the same short periods.³⁶ Entire units were wiped out. They were not just injured. They were killed outright. On 1 March, the 521st battalion lost a full squadron and suffered heavy casualties. Those on the frontline were encircled with no hope of getting out. Whole battalions were lost (e.g. the 518th) or lost more than half of their soldiers (e.g. the 517th).³⁷

The increasing exhaustion of the remaining troops, the premature wearing off of the weapons, and the inability to secure adequate supplies, especially ammunition, all added up to the inevitable routing

³⁶ Liang Xueqing and Xu Boxiong, *Song Hu yu Ri xuezhuan da huashi* (Pictorial Review of the Sino-Japanese Conflict in Shanghai) (Shanghai: Wenhua meishu tushu gongsi, 1933), 9–17.

³⁷ Zhang Zhizhong, 'Di wu jun canjia Song Hu kang Ri zhanyi de jingguo' (The unfolding of the Fifth Army's participation to the Resist Japan Shanghai Battle), in *Kang Ri fengyun lu: Jinian kang Ri zhanzheng shengli sishi zhounian Nanjing wenshi ziliao zhuanji* (Records of Resistance against Japan: Commemorating the 40th Anniversary of the Victory of the Anti-Japanese War) (Nanjing: Zhongguo renmin zhengzhi xieshang huiyi Nanjing shi weiyuanhui wenshi ziliao yanjiu weiyuanhui, 1985), 134, 136, 137-38

of the Chinese forces. Moreover, the strategy of position warfare based on fortified trenches that initially enabled the Chinese lines to fend off the Japanese attacks proved ineffective, and even, lethal under the conditions of modern mobile warfare that the Japanese army implemented. The ingredients of the Chinese defeat were both quantitative and qualitative, as I discuss below. For the Japanese, however, it was a bitter victory as they acquired only incrementally the correct tactics that eventually led them to overpower the Chinese troops.

The Japanese military compendium offers a detailed record of all the military operations between 20 February and 5 March 1932. What it reveals was the extreme degree of preparation and the rigorous accounting of the various elements involved in each operation (time, units, weapons, movement, etc.). The Japanese Command produced sets of precise instructions to be carried out by its units, down to the squad level.³⁸ In its reading of the initial unsuccessful operations, the lack of proper coordination of men and means figured prominently. The Japanese Command was not prepared to let this situation persist. Yet one should not underestimate the experimental nature of the Japanese operations that involved the combined use and strict coordination of the whole range of tactics, weapons and movement of troops. It was a laboratory in action. It is unlikely that the Chinese troops enjoyed an equal level of preparedness, both in strategizing their movements and in keeping a record of their operations. Without air reconnaissance, they almost fought in the dark compared to their opponents. What is more, it is unlikely that the experience gained in the Shanghai Battle was studied and used in training for ulterior battles. At least, I have not yet found any such evidence.

In operational terms, a typical round of assault by the Japanese would start with reconnaissance flights as soon as the sun rose over the targeted Chinese lines. While the information on positions was

³⁸ The Japanese book contains hundreds of pages of precise description of specific operations, with maps, graphs, etc.. This forms the bulk of the volume. For concrete examples, see the small-scale attack on the Sungjiazhai village on 20th February, Sanbō Honbu. *Shanghai fukin no kaisen*, 221-24 or the general attack on Jiangwan by the right-wing units on 22 February, Sanbō Honbu. *Shanghai fukin no kaisen*, 468-485 and Map 17-2, “Kōwanchin kitagawa daikyū shidan shuryoku hōmen sentō keikazu yōzu” (Map of fighting by the main force of the ninth division on the north side of Jiangwan)

processed, a squadron of planes would take off to start bombing the enemy positions. These were usually short rounds of 30 minutes. It would focus on the more fortified positions, especially villages or towns used as strongholds. Then the artillery would take over and pound the Chinese positions at various points along the defense lines in preparation for the ground attack by the infantry. The purpose of the heavy shelling was to drown Chinese defense capability and open breaches in the lines for the Japanese soldiers to break through with limited casualties.³⁹ Over the course of the conflict the Japanese learned how to adjust their canons and to shoot with increasing accuracy. By the end of the hostilities, they were able to hit their targets head on. Finally, the infantry would launch its attack with the usual array of small weapons (rifles, machine guns, grenades, mortars) and short-range canons.

The Japanese army had two major advantages: superior weaponry, especially long-range canons, and air force. The infantry troops were equipped with rifles, machine guns, heavy machine guns, mortars and hand grenades. There may not have been a drastic qualitative difference at this level between the two armies, but the major factor that played to the advantage of the Japanese was quantity. There was no lack of supply of weapons and ammunition which enabled the Japanese troops to subject the Chinese soldiers to sustained heavy firing. Graph 1 documents the volume of bullets, shells and hand grenades the Japanese attackers used in the four phases of the campaign. In the first period (first attack), fighting started in earnest when the Japanese troops reached the Jiangwan stronghold, and became bogged down. The level of firing became very intense without breaking down the Chinese defense.⁴⁰

Yet, the Chinese troops were unable to match the firing power of the Japanese. When the second attack started, even if the level of firing and shelling decreased in absolute terms, the Chinese

³⁹ For concrete examples, see Sanbō Honbu. *Shanghai fukin no kaisen*, 252-53, 563-64.

⁴⁰ All the figures on weaponry and ammunition are drawn from Sanbō Honbu. *Shanghai fukin no kaisen*, dai 16-kan Fuhyō (Volume 16 Appendix tables).

defenders were no longer able to sustain this level of attack and were forced to withdraw to their main line of defense. They made a very brave effort to keep their positions, but with shells and bombs pouring over their heads, they became hapless sitting ducks in their trenches. The Japanese infantry crushed the Chinese defense lines and went on pursuing largely defenseless Chinese soldiers. A comparison of the firing power of the Chinese and Japanese troops reveals the enormous gap between the two armies.⁴¹

Graph 1. Total amount of ammunition used during the Shanghai Battle

Map 4 delineates the progress of the Japanese units as they fought their way across the Chinese lines. The larger circles highlight the locations where heavy shelling and firing took place. The distribution by wave of attack emphasizes the importance of the Jiangwan stronghold and the fierce resistance the Chinese soldiers were able to put up. Fighting persisted through the three waves of attack. To the north of Jiangwan, the Japanese moved steadily, albeit slowly, until the Chinese defense lines collapsed. The distribution of the locations during the last attack confirms that the Japanese overpowered their opponents only during their final show of force, even if the second attack had probably left the Chinese defenders in a precarious position. The final stage was clearly one of pursuit and destruction of the retreating Chinese columns, mostly with light equipment.

Map 4. Distribution of the bullets and shell fired by the Japanese

Artillery played an essential role in providing the Japanese combatants with crucial support to soften up the Chinese defense before actual assault. The Japanese artillery could fire from a much more remote distance with hardly any risk to get hit by the short-range Chinese canons. The most

⁴¹ The Chinese army implemented the same tactics in 1937, which provided a small advantage initially, with the same disastrous results eventually. Ven, Hans van de. *China at War: Triumph and Tragedy in the Emergence of the New China*. Cambridge, Mass.: Harvard University Press, 2018, 80-81

emblematic example was the use of a Horowitz canon that could pound the Chinese lines from Zhabei (Map 5). As discussed above, the Japanese artillery subjected the Chinese lines to a rain of shells before any attack by the infantry to facilitate the latter's approach and take advantage of breaches in the Chinese lines.

Map 5. Shooting range of the Japanese and Chinese artillery (3rd attack)

The air force was the second major advantage the Japanese enjoyed over their opponents.⁴² Even if the Chinese possessed rudimentary anti-aircraft weaponry, it was in small quantity and inefficient, even if Chinese soldiers managed to shoot down a couple of Japanese aircrafts. The Japanese planes served two purposes. In combat, they were used to drop bombs on the Chinese lines. It was no small feat. The Japanese mobilized altogether 200 planes — half the entire air force of the Navy — which endowed them with an impressive operational capacity.⁴³ The word deluge is probably excessive, but bombs dropped like rain on the Chinese soldiers. Another fundamental use of the air force was in reconnaissance and aerial photography. These reconnaissance missions were systematic before any assault. It allowed the Japanese to know exactly where the Chinese troops were positioned, the defense installations they could expect, and of course the natural state of the ground (rivers, built up places). The main volume of the source materials contained numerous aerial photographs with military annotations.⁴⁴ Total dominance in the air and on the water gave the Japanese military a considerable advantage. It could decide when and where to concentrate its strikes and to launch decisive operations.⁴⁵

⁴² The use of the navy air force figured prominently in all phases of military operations during the Shanghai Battle. Sanbō Honbu. *Shanghai fukin no kaisei*, 273-85, 390-98, 517-25, 598-605, 641-71, 808-20, 926-29, 933-37.

⁴³ Christian Henriot, "Beyond Glory: Civilians, Combatants, and Society During the Battle of Shanghai," *War & Society* 32, no. 2 (2012): 115.

⁴⁴ These photographs can be found on the Virtual Shanghai platform [<https://virtualshanghai.net>] in the Image database (keyword 1932B to retrieve all the photographic record from the source materials).

⁴⁵ Zhang Xuewu, *Song Hu kangzhan suo de zhi jingyan yu jiaoxun* (A record of the war against Japan of the Sixtieth Division of the Nineteenth Army) (Nanjing: Shoudu zhongyang lujunguan xuexiao tushuguan, 1933), p. 31.

On 22 February, after two days of ferocious fighting, the Japanese succeeded in taking over the fortified Jiangwan village and its surrounding area. The Chinese troops withdrew to their main defense line. The following day, the Japanese started their second major attack and pounded the Chinese positions for three successive days, without making a serious dent into the Chinese lines. The Chinese units backed down, but eventually they were able to repel the Japanese infantry assault and regain most of their positions. The failure to overwhelm the Chinese defense lines cost the Japanese commander his position.⁴⁶ Yet the Chinese ranks had seriously thinned out, due to the high toll of casualties they had incurred. This last stand by the Chinese troops was a Pyrrhic victory. When the next round of fighting — the third wave of attack in the Japanese source book — started on 26 February, they could no longer sustain the violent assault. With a much-increased volume of ammunition by the Japanese, the Chinese lines suffered their highest level of casualties. Between the constant pounding by the Japanese heavy artillery and the hand-to-hand attack by the Japanese infantry, the Chinese lines just crumbled.

The mapping of casualties, although it is based on incomplete data, reveals the extreme violence of the fighting (Map 6). It can also serve to map the location of the Japanese and Chinese units directly involved in fighting. The Japanese had their share of casualties, which testifies to the stubborn resistance of the Chinese soldiers against all odds. One can see however that the level of casualties was fairly even over time among the Japanese troops. Yet it also shows that during the second attack there was movement back and forth since the casualties can be found both at the same level as those of the first attack, and eventually right behind those of the third attack. The Japanese suffered a relatively moderate level of casualties. According to the Japanese source, there were 2,500 casualties (not including the 1,000 casualties of the Navy in Zhabei), of which 620 dead. It represented a rate of 5.3 percent for the Army and 5.9% for both the Navy and the Army. The first and third attack saw

⁴⁶ Jordan, 148-150

the highest level of casualties with a concentration only in a few locations along the Chinese defense lines. There were very few casualties outside the main battlefield.

It is more delicate to examine how the Chinese troops fared during the fighting because we have incomplete data, except for the officers. From their positions at the time of death, however, we can get a sense of the distribution of their respective units. The distribution of casualties among officers constitutes a visual aid as to where the Chinese units suffered the highest level of casualties. Our only complete source on Chinese casualties is the roster of names of the 1,070 soldiers of the 88th Division killed in action. It cannot represent the process for the other units involved in fighting, but it reflects quite well where and when the Chinese defense lines collapsed. In the last days of fighting, on 29 February and 1 March, there was a complete melting down of defense lines and a concomitant peak of casualties. Their level reached a point where there was a total disorganization of the fighting units and a full collapse of communications, hence preventing any form of tactical move. The absence of any medical support since the beginning of the battle left the Chinese soldiers at the mercy of even a minor injury.⁴⁷ In the final phase, with hardly any ammunition to defend themselves, the Chinese soldiers turned into powerless and defenseless targets behind their trenches. The Japanese troops just rolled over the remaining Chinese positions and pursued the retreating soldiers all the way to Yangjiaqiao. The Chinese troops lost a great number of soldiers and officers during their retreat.

Map 6A & B. Distribution of the Japanese and Chinese casualties

Conclusion

The 1932 Shanghai Battle contained in a condensed form all the ingredients of W.W.II warfare. It was a critical steppingstone for the Japanese military in experiencing first-hand new conditions of

⁴⁷ Henriot, "Beyond Glory: Civilians, Combatants, and Society During the Battle of Shanghai," 120.

combat, from the acquaintance with unknown and unpredictable battlefield conditions to designing elaborate battle plans that involved complex logistics, the coordination of different fighting units (infantry, navy, artillery), and the combined use of a wide range of weapons and technologies. Fighting in and over Shanghai — air raids and close-range fighting in narrow streets — represented a new military challenge (the Japanese Landing Corps paid a high price for its lack of experience), but also an opportunity to implement to their full extent the new technologies at hand (air force, tanks) and observe their limitations in an urban environment. Assessing the impact and damages done by bombing and shelling was also a central concern of all the foreign armed forces stationed in Shanghai. Zhabei constituted *volens nolens* a real-life laboratory for the execution of military tactics and use of weapons of massive destruction. It can be said with relative assurance that the Chinese soldiers made the better use of the urban infrastructure, even if it meant sustained Japanese bombing that set the whole district on fire. Chinese civilians paid the price, with their life and with the loss of their properties.

The Japanese combatants were not more prepared for the treacherous ground that they found in the Jiangwan area. They had to overcome arduous logistical issues to be able to take advantage of their weaponry, especially the heavy guns and their supply in ammunition. The strategic choice of the Chinese troops to establish strong defense lines and carry out a war of positions proved its efficacy, initially. But it was also a choice by default due to the logistical deficiencies — especially for transportation — of the Chinese units. The absence of support by naval and air forces left the infantry solely in charge of fighting under unequal conditions. There was nothing to stop the Japanese command to bring in reinforcements, to use the Huangpu riverbank for landing, to pound the advanced Chinese positions from their ships, and to set their infantry on the move toward the Chinese defense lines with little impediment. The dense network of trenches, which served as a hard and resisting shield, also left the Chinese soldiers stranded in the much more mobile type of warfare of their opponents.

The 1932 Shanghai Battle was certainly a lesson in humility for the Japanese military. Their assessment of Chinese military capacities proved wrong almost at every turn. Yet they were able to turn a near disaster into a full victory through a full-scale war based on not just quantitative inputs — weaponry, ammunition, troops — but more to the point through the implementation of novel military tactics involving the coordinated use of the whole range of armed forces and technologies at their disposal. Compared to other armies in Europe or the United States, the Japanese military may not have counted as the most technologically advanced and the most sophisticated army. Yet, its poor initial performance notwithstanding, it mounted most probably the first « total-war » military campaign. This was extremely valuable as it established a matrix on which the Japanese command could rely to re-think its military strategies toward China and design military campaigns that would incorporate the experience gained in the Shanghai Battle. This is beyond the scope of this paper, but despite the lack of similar documentation, it is tempting to revisit the 1937 Shanghai Battle from this angle.

Author's Version

Table 1. Military units and manpower involved in the battle

Chinese		Manpower	Japanese	Manpower
19th	60th	11,000	Shanghai Landing Corps	12,000
	61st	12,500	9th Division	47,000
	78th	10,000	11th Division	
			24th Mixed brigade	
5th	87th	10,000		
	88th	8,000		
Other			Naval Air Force	200 planes
	Military police	1,000		
	Volunteers			
	Corps	4,000		
			Total	59,000
Total		51,500		
Alt. Estimate		63,000		

Graph 1. Total amount of ammunition used during the Shanghai Battle



Author's Version