7 A Military History of the Boshin War

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On January 27, 1868 the army of the former shogunate, while heading to the capital of Kyoto, clashed with the forces of Satsuma and Chōshū at Toba and Fushimi, marking the outbreak of the Boshin War, which would last approximately one year and five months. Although the shogun's army lost its appetite for battle and officially disbanded after losing at Toba and Fushimi, hardline Tokugawa loyalists managed to escape and organize resistance across Japan. In the northeast, several domains formed the Northern Alliance (*Ōuetsu Reppan Dōmei* or *Hokubu Dōmei*) that fought against the new government, first in the Tohoku region, and later in Ezo (present-day Hokkaido).

This chapter explores some of those events, focusing on how the Boshin War became a transformative period in the military and social history of Japan by bringing an end to the traditional military system. In the wake of armed internal conflicts, almost every domain embraced modern, military organizational methods modeled after those of contemporary Europe. The key trigger to these reforms was the adoption of modern firearms, notably rifles, which decisively reshaped the military organizations of the day.

Advancements in Weapons and Military Systems in Europe

Rapid advancements in technology transformed firearms in mid-nineteenth-century Europe from smoothbore to rifled firearms. Although many had learned that cutting spiral-rifling grooves into the bore of small guns could increase power by causing projectiles to spin as they came into contact with the rifling, gunsmiths were challenged to devise a way for bullets to be smoothly loaded into muzzle-loaded rifles. What is more, hunting guns such as the Jagdgewehr rifle, in use since the eighteenth century, were cumbersome to load as a man in the field would first have to insert a ramrod to pack the bore with a lead bullet. As a result, such rifled guns were used primarily as a single, sniper shot weapon.

In the 1840s, the invention of an expanding conical-shaped bullet by a French Army captain, Claude-Étienne Minié, led to the popularization of the rifle among the armies of the major European powers.[1] Because of this advancement, European armies adopted muzzle-loading rifles (hereafter MLR) in the mid-1850s. For example, the British army began to use the Enfield rifle (an MLR) on a large scale during the Crimean War (1853–1856) waged against Russia. A soldier fired by inserting a bullet and powder into the bore of the gun and then mounting a primer. New types of rifle like the Enfield fired conical bullets instead of the round bullets used in smoothbore muskets. In Europe and the United States, rifle technology advanced so rapidly that by the mid-1860s armies began to employ even more advanced breech-loading rifles (hereafter BLR). Historians have long noted how the Prussian army defeated forces of the Austrian Empire in the 1866 Battle of Königgrätz with its high firepower, breech-loading Dreyse needle-gun (Zündnadelgewehr) while its opponents employed the muzzle-loading Lorenz rifle.[2]

The improvements in rifle technology transformed warfare by increasing the firing range and firepower of armies. Earlier battle tactics such as those applied during the Napoleonic Wars, saw infantry send volleys of shots from distances of fifty to one hundred meters into densely packed concentrations of enemy troops operating in battalions to be followed by a massive bayonet charge. With better rifle technology, battles often turned into sniping skirmishes, with more engagements occurring at distances of more than 200–300 meters between armies. As a result, armies deployed men at wider intervals in the battlefield and riflemen concealed themselves behind breastworks and other improvised covers.[3] The US Civil War witnessed a large-scale transition from the earlier forms of military engagement to the latter types of battle. Incidentally, this also meant that the cavalry became virtually obsolete as a military battle force as the infantry could massacre the horses before they even reached enemy lines.

As will be discussed more below, during the Boshin War, combatants still used smoothbore guns but increasingly employed MLRs, especially Enfields, as well as some British-produced Sniders, (a BLR modeled on the Enfield), and a few repeating rifles such as the American Spencer

[1] Takahashi Noriyuki, Hōya Tōru, et al., *Nihon gunji-shi* [A Military History of Japan] (Tokyo: Yoshikawa Kōbunkan, 2005), pp. 254–257.

[2] For an analysis of the reasons for Prussian military success, see Gordon A. Craig, *The Battle of Königgrätz: Prussia's Victory over Austria, 1866* (Philadelphia: Lippincott, 1964).

[3] Hōya Tōru, "Sejōhō dankai no gunji-gijutsu to Boshin sensō" [The Advent of Rifle Technology and the Boshin War] in *Boshin sensō no shiryōgaku* [The Study of Historical Sources of the Boshin War] ed. Hakoishi Hiroshi (Tokyo: Bensei Shuppan, 2013), pp. 61–87.

seven-shot. In addition to the Enfield, the French Minié was also widely adopted and became a generic name for the MLR in Japan.

Military Organization during the Edo Period

Before explaining how the advent of rifles disrupted Japan's early modern military organization, we need to first review the overall structure of the early modern military system. Until the late Edo period, smoothbore muskets had been used in conjunction with other weapons such as bows and spears. Furthermore, engagements involved hand-to-hand combat with weapons such as the short spear. As summarized by historian Takagi Shōsaku, samurai generals, usually senior retainers of a lord, led military units. Each unit consisted of three core sections, the first being foot soldiers (*ashigaru*), junior vassals to the lord, armed with bows, long-shafted spears and matchlock muskets. A retainer of the lord served as the mounted commander of the second core section, the unit's cavalry. Bands of warriors belonging to, or allied with the same family, composed the cavalry's rank and file. Peasants mustered from feudal estates made up the final section: supply units supporting the men in the field.

Foot soldiers would often engage an enemy force by first firing their muskets and bows, and then units armed with spears would move in when the enemy came within hand-combat fighting range. This "foot-soldier battle" would mark the first stage of an engagement. According to the philosophy of early modern combat, mounted warriors would subsequently ride out, and those warriors would decide the battle via hand-to-hand combat using spears and other comparable weapons. Vassals in a lord's retainer band mustered personnel and armaments based on a military service criteria set according to the annual rice stipend (measured in *koku*) received from the lord, which vassals were granted according to their social rank within the domain. Military service personnel also included low-status individuals, noncombatants who served as attendants to the needs of the vassals and were not allowed to participate in battles. Takagi points out that military roles in early modern army units came to designate status organization, characterizing what can be termed the "garrison state." This system of rule was being consolidated and legitimized almost as if a huge army had been stationed to dominate all of Japan.[4]

[4] Takagi Shōsaku, *Nihon kinsei kokka-shi no kenkyū* [The History of the Early Modern Japanese State] (Tokyo: Iwanami Shoten, 1990).

Late Tokugawa Military Reforms

In the closing decades of the Edo period, *Gewehr* firearms came into use, which were the flintlock, cap-lock, muzzle-loading smoothbore muskets popular in Europe until the early nineteenth century. This occurred along with the gradual introduction of Western-style artillery imported by the Nagasaki artillerist, Takashima Shūhan. Nonetheless, such innovation was limited to the Westernization of firearms for foot-soldier units in peacetime (the first group in Takagi's model) and thus did not challenge the established military system. Moreover, flintlock muskets did not yet amount to a disruptive technology. The limited range of flintlock *Gewehr* guns was still on par with the conventional matchlocks widely used in Japan. Their use did not affect the conventional military wisdom and strategy of samurai warriors who favored "honorable" hand-to-hand combat. The shogunate implemented some military restructuring during the Ansei Reforms of the late 1850s, but these forces still used less sophisticated smoothbore muskets.[5]

During the *bakumatsu* period, lower-ranked vassals equipped with muskets were trained to march in unison and fire volleys from dense formations. With the introduction of modern rifles from Europe and the United States in the 1860s, this structure quickly became obsolete. A Tokugawa delegation sent to the United States for the ratification of trade agreements returned with presents offered by Americans as a token of amity between the United States and Japan. Among the gifts, the US government gave a state-of-the-art, muzzle-loading rifle cannon (akin to a field cannon)and one hundred Springfield infantry rifles, named after the Springfield Armory in Massachusetts that was supplying the US Army. The muzzle-loading Springfield was equipped with the so-called Maynard tape primer and became the most widely used gun in the US Civil War ahead of the Enfield rifle.[6]

Based on these two aforementioned weapons, Egawa Hidetoshi, a Tokugawa retainer and specialist in Western gun technology, initiated the production of firearms. Egawa's project encountered various technical difficulties, however, and he failed to produce these new types of weapon on a large scale. Egawa used a few imitation firearms that his project produced to equip peasant soldiers *(nōhei)* under his command,

[5] Hōya Tōru, *Boshin sensō* [The Boshin War] (Tokyo: Yoshikawa Kōbunkan, 2007), pp. 242–254.

[6] Hōya, "Bakumatsu no gunji kaikaku to sejōhō – beikoku-sei raifurukanon nitsuite" [Rifling Technology and Military Reform in the *Bakumatsu* Period – American-Made Rifle Cannons] in *Teppō denrai no Nihon shi: hinawajū kara raifurujū made* [The Introduction of Firearms in Japan: From Matchlocks to Rifles] ed. Udagawa Takehisa (Tokyo: Yoshikawa Kōbunkan, 2007).

units explored by Brian Platt in his chapter.[7] At the time Japanese gunsmiths, working by hand, could craft muzzle-loading rifles similar to those manufactured abroad but the time required limited the number of weapons being produced. Moreover, the gunsmiths could not manufacture muzzle-loading rifles with strong enough steel barrels to withstand speed firing in combat.

After 1862, the shogunate encouraged domains to import firearms. Throughout its rule, the Tokugawa regime had restricted the military capacity of lords as a means of assuring its dominant place in the Japanese realm. Yet bakufu leaders put aside concerns about allowing a military strengthening of domains in order to bolster the overall defenses of the Japanese state. As Harald Fuess details in his chapter, the Tokugawa move resulted in tens of thousands of imported guns flowing through the newly established treaty ports. The wealthy Shimazu clan of Satsuma notably purchased Enfield rifles, breech-loading and repeating guns, as well as field artillery.

The shogunate's reforms induced radical military developments. During the Bunkyū period (1861–1863), the shogunate established three types of army unit (infantry, cavalry, and artillery) in addition to existing feudal military organizations. The shogunate ordered that half of the men mobilized by bannermen (*hatamoto*), most of whom were peasants mustered from the lands of bannermen, should be placed under direct Tokugawa control to form a standing rifle corps. After the start of the Tokugawa conflicts with Chōshū (1864–1866), the shogunate ordered that peasants in lands under its direct control be pressed into service as infantry troops. On Tokugawa estates, peasants were mobilized in proportion to the assessed wealth of the said territory: namely one man for 1,000 *koku*. In Tokugawa lands in eastern Japan, a form of peasant conscription was adopted. Furthermore, the bannermen's military levies were transformed into cash payments in the Keiō period (1865–1868), bringing all infantry officially under the direct control of the shogunate. The established lord-and-vassal military units of the early modern period, which had been composed of samurai retainers and their liegemen, were dismantled. The shogunate commissioned a few samurai retainers into the officer class, and assigned the rest to rifle corps according to their status. At the time, Tokugawa leaders instituted measures to expand the recruitment base for personnel in its rifle corps, for example, by including servant retainers (*hōkōnin*) who heretofore had assumed noncombatant

[7] Hōya, "Bakufu no beikoku-shiki sejōjū seisan nitsuite" [The Production of American-Style Rifles by the Bakufu] *Tokyo Daigaku Shiryōhensanjo kenkyū kiyō* [Research Bulletin of the Historiographical Institute, University of Tokyo] 11 (2001), 36–52.

roles. They also implemented the provisional recruitment of peasant commoners (*hyakusho*) by elevating their status to servant retainers and providing them salaries and short swords as a mark of their temporarily elevated social positions.[8]

These radical reforms threatened the very foundation of the status-based rule of the samurai class. As a result, their implementation proved difficult. Nonetheless, for the shogunate to resist the military capabilities of the Western powers while maintaining military dominance within the Japanese state, implementing reforms to address this new stage of technological development was a challenge of paramount importance.

By the autumn of 1867, the shogunate's forces probably comprised 24,000 troops organized into forty-eight battalions modeled on armies of Western nations. Conversely, as is well known, the domains of Satsuma and Chōshū, which had fought against Western military forces during the bombardments of Kagoshima and Shimonoseki, had rapidly adopted rifle-corps organizations, and each domain had the capability of mobilizing over 11,000 troops, respectively. In addition, other lords had started switching their domain forces to Western-style rifle troops with varying degrees of success.[9]

Bakufu leaders enforced reforms to the "shogunate model" amidst internal armed conflicts such as those with Chōshū and the Tsukuba War (1864–1865) initiated by disaffected samurai from the Mito domain, an internal conflict that had a wide-reaching impact, as Maren Ehlers explains in her chapter. The shogunate also required domain leaders to take a similar approach and prepared proposals in the mid-1860s for how they could reform their military forces to support the shogunate. Specifically, Tokugawa leaders encouraged domains to replace foot, cavalry, and artillery units to allow the adoption of rifle technology. Bakufu leaders, however, ultimately lacked the ability to force these reforms fully on the domains. They aimed for the hereditary vassals of the Tokugawa shoguns (*fudai daimyō*) to pledge a certain number of troops, even in times of peace, which in combination with the military under the direct control of the shogunate, would constitute a standing national army. The Tokugawa War Office moved to reform the mobilization standards of the wealthier "outside lords" (*tozama daimyō*) but was never able to implement that plan. Lords resisted this interference with their local sovereignty and the shogunate lacked the authority to convince domain leaders to implement more radical reforms. Pushing through realm-wide, military reforms to establish a unified military system that

[8] Hōya, *Boshin sensō*, pp. 267–270, 276–280.
[9] Hōya, *Boshin sensō no gunji-shi: kōza Meiji ishin 3* [The Military History of the Boshin War: Lecture 3 on the Meiji Restoration] (Tokyo: Yūshisha, 2011).

could adapt to new rifle technology as well as the creation of a unified national navy, which included steam-driven vessels, ultimately required strong central authority. Thus, if the shogunate could not accomplish this task, which other force could do so in Japan? This was precisely the question addressed in the Boshin War.

Military Mobilizations by Old and New Regimes

Immediately after the Battle of Toba–Fushimi, the imperial court issued an order for punitive expeditions against the former shogun, Tokugawa Yoshinobu. Eastern expeditionary forces marched toward Edo on three fronts: along the Tōkaidō Pacific coastal route, the Tōsandō inland route, and the Hokuriku route on the coast of the Sea of Japan.

On February 29, 1868, the nascent Meiji government established the Defense Secretariat (*gunbō jimukyoku*) with central jurisdiction over the navy and army, as well as military training, security, and emergency military services. As a result, the new government created an effective institutional infrastructure for waging war. Five days later, the government handed a strategic plan known as "Plan of the Court" to the field generals, accompanied by specific military orders and camp regulations. As a basic precondition, the new Meiji government demanded that those who sought to become its allies would actively support the government's military activities. The leaders of the new government regarded mere verbal and written pledges of allegiance as insufficient, instead asking for concrete contributions. Meiji leaders directed lords to pay homage to the emperor by flatly rejecting any feudatory relations with the Tokugawa shogun and by responding to the calls of military mobilization.

The military force of the new government consisted of the military power of the lords who had been ordered to Kyoto in order to establish a force "commensurate with their domestic power." One or two officers from each domain were nominated to the governor general's camp, forming a "Council Chamber" (*kaigisho*) that represented the units from various domains. This Council Chamber served as a forum for the execution of a range of matters regarded as requiring coordination among the lords. Although domains were ordered to submit "state-of-war notifications," the fact that these were essentially created by each domain underscores Hakoishi Hiroshi's conclusion that the new government's army was "an aggregate of soldiers from largely independent domains."[10]

[10] Hakoishi Hiroshi, "*Sōron: Boshin sensō kenkyū no tame no shiryōgaku*" [General Remarks: Using the Study of Historical Sources to Research the Boshin War] in Hakoishi ed., *Boshin sensō no shiryōgaku*, pp. 31–32.

Thus, initially at least, the military contributions of the domains remained essentially unchanged from their military service duties of the Edo period. In late 1868, Meiji leaders attempted to standardize the military levy at "60 men per each assessed 10,000 bushels of rice." They subsequently stipulated standard rations and pay when on duty or on leave for the eastern expeditionary forces. It prescribed that each mobilized soldier would receive "four cups of rice and one gold coin (*shu*) in camp and two cups of rice and 100 *mon* coins on leave." This was later revised to six cups of rice and one gold coin. In contemporary terms, this amounted to the provision of a subsidy for food and lodging by the new government to the various allied domains who mobilized troops.

In addition to the regular forces of allied domains, the new government raised a "grassroots army" (*sōmōtai*) composed of peasants, priests, and "masterless samurai" (*rōnin*), which, as the vanguard of the new army, participated in raids and seizures of Tokugawa administrative offices. Drawing on a range of historical sources, historians have explored in depth these grassroots bands. Although the new government used these military forces to establish its hegemony, their usefulness diminished after the quick pacification of western Japan. Many participants in the grassroots army ardently opposed foreign intervention. Consequently, in conjunction with its policy to cultivate peace and amity with foreign nations, the new government cut ties with these grassroots xenophobes and issued an order forbidding their employment in the private armies of "court aristocrats" *(kuge*). The government included this prohibition as the fifth item of the Five Public Notices issued on April 6, 1868.

Next, let us look at the makeup of the military forces to be supplied by the domains. The new government made strict and unprecedented demands. On February 28, 1868, the Bureau of Army and Naval Affairs (*kairiku gunmū-kyoku*) informed domains that, for the Eastern Expedition, they should only dispatch gunnery and artillery corps and no further manpower. In addition, it instructed domains that "your troops should not bring clothing or other miscellaneous equipment that has no practical use." The government also directed that units should not include surplus officers beyond those actually required to perform necessary duties. It did allow, however, for lords to remain in Kyoto instead of going into the field.[11]

The new template that the Meiji authorities presented to the domains was merely "some gunnery units with officers, some cannons with commanders of those artillery units, and some porters." With this short

[11] Miyachi Masato, "*Fukko-ki genshiryō no kisoteki kenkyū*" [A Basic Study of the Original Documents of Fukko-ki] *Tokyo Daigaku Shiryōhensanjo kenkyū kiyō* 1 (1990): 66–139.

directive, the government effectively disbanded units of archers and spearmen, key components of the early modern military structure. Moreover, the mounted cavalry, which had been the backbone of samurai military organization, was completely eliminated. The records of various lords show the thoroughness of the implementation of the new government's instructions. We find orders stating that, "spear corps are to be terminated," in records from Obama domain (now part of Fukui Prefecture) and "spears are now forbidden" in records from Kumamoto domain (today's Kumamoto Prefecture). Implementing the Western-style military systems had become a question of political survival under the new regime. This is revealed in domain records, which include statements such as "the Imperial Court has issued various specifications for troop dispatches" (Kumamoto), and "it must be an appropriate, practical, and lightly-equipped military system" (Tottori domain). Even domains that had previously been ambivalent about the adoption of Western-style military systems began to embrace such practices.[12]

Hosokawa Moriyoshi of the Kumamoto domain recognized that reforms to the military system would be indispensable for victory in the battlefield. He also supported the strong pressure exerted by the new government, stressing that "without these resolute reforms," it would be "impossible to imagine situations that might arise in future." However, some groups within the Kumamoto domain offered strong opposition to reform, as is evident from the fact that the enactment of reforms in April 1868 forced the retirement of several, conservative high-ranking retainers. Hosokawa had to wait three months to disband six established battalions and replace them with units organized along Western-style military lines.[13]

The new government also pushed decisive reforms of military organization even in domains where the Edo period military service system had been maintained, therefore interfering profoundly with feudal rulers' control over their military forces. The fighting strength of the established houses declined, and soon the old military order collapsed completely. As the Boshin War began, military men, whether they supported the Tokugawa regime or the new government, realized that soldiers armed with short-range matchlocks and old-style *Gewehr* muskets would prove

[12] Kōshaku Hosokawa-ke Hensanjo, *Higo-han kokuji shiryō* [Official Records of the Higo Domain] (Kumamoto, Kōshaku Hosokawa-ke Hensanjo, 1932); "Tottori-hanshi Amano Yūji nisshi" [The Journal of Amano Yūji, Retainer of Tottori Domain] Unpublished document, Historiographical Institute, University of Tokyo.

[13] Morita Seiichi, "Bakumatsu ishinki ni okeru Higo-Kumamoto-han" [The Higo-Kumamoto Domain in the *Bakumatsu*-Restoration Period] in *Meiji ishin to Kyūshū, Kyūshū bunka ronshū* 3 [Kyushu and the Meiji Restoration: A Collection of Essays on Kyushu Culture, Vol. 3] ed. Ōkubo Toshiaki (Tokyo: Heibonsha, 1973).

useless. As Fuess explores in his chapter, this prompted domains to procure more long-range rifles and artillery from Western merchants based in the treaty ports of Nagasaki and Yokohama. Moreover, while domains in Tohoku such as Shōnai and Yonezawa implemented reforms to their military systems in early 1867, other northern domains, namely Sendai and Akita, only began shifting to gunnery corps following orders by a new government in the spring of 1868.[14]

Meanwhile, the leaders of the defeated Tokugawa regime mustered the troops of their allies and reconsidered their approach to military mobilization. Immediately after the Battle of Toba–Fushimi, they adopted a policy of nominal allegiance to the new imperial government while preparing to wage war against it. On February 9, 1868, the council of elders meeting at Edo ordered lords remaining loyal to the shogun to draw up a list of the forces they could assemble.

The remaining Tokugawa senior councilors (*rōjū*) asked loyal lords how many soldiers with firearms they could dispatch. They also queried about the number of available artillery cannon to establish roughly how many field guns could be employed in battle. In addition, they enquired about the "presence of spearmen and swordsmen" and "what style would either Japanese or Western troops have?" These latter Tokugawa enquiries reveal the leaders' halfhearted attitude toward reform even in the face of their regime's existential crisis. Moreover, Tokugawa officials asked about the "total number" of men including noncombatant followers, a question that confirms that they were still approaching military preparation within the mindset of Edo period military mobilization practices. On February 12, 1868, Tokugawa leaders attempted to implement elements of infantry conscripted in lands under direct Tokugawa control. In many respects, this initiative had already been partially carried out during the mid-1860s. Yet Tokugawa leaders abruptly ended these efforts on February 27, 1868, claiming they were no longer necessary following the withdrawal from Osaka of Tokugawa infantry units. As these events demonstrate, even when their very survival was at stake, the leaders of the Tokugawa government proved unable to radically overhaul the established model of feudal military service and strategy.

Yet that was not always the case with the pro-Tokugawa units on the ground. As the war spread across eastern Japan, members of the former Tokugawa army employed more sophisticated tactics, with some units transforming into veritable, modern forces. Former bakufu infantry units emerged as a core group embracing Western practices. Imai Nobuo, the

[14] In early 1868, Sendai leaders initially obeyed directives from the Meiji government but later joined the alliance against the new regime.

Tokugawa retainer profiled by Robert Hellyer, was a well-known swordsman. Along with Furuya Sakuzaemon, Imai commanded a unit composed of former bakufu infantry, the Shōhōtai, which fought in clashes in the northern Kanto and Shinetsu regions, before also participating in battles in Aizu and Hokkaido. On May 23, 1869, the Shōhōtai, and another unit, the Denshūtai, both under Imai's command, engaged Meiji government forces at the Battle of Futamataguchi near Hakodate. Over a span of seventeen hours, the two units, which together numbered no more than 130 men, reportedly fired 35,000 rounds of ammunition.[15] The heavy use of rifle fire demonstrates that Imai had definitely transformed himself from a swordsman into a leader of a rifle brigade employing modern tactics.

Supplies, Transport, and Various Devices for the Execution of War

Wars are decided not only on the battlefield; logistics also matter. The movement of personnel and associated arrangements for meals, accommodation, provisioning, and transportation, as well as the shipping of materials such as weapons and ammunition often pose significant challenges. In the case of its eastern expeditionary forces, the new government entrusted smaller domains along the major highway routes with responsibility for provisioning as well as the handling of transport and shipping arrangements, thereby spreading out the duties of transporting troops and setting up accommodations along multiple poststations. In addition, the government placed station supervisors at each poststation, and entrusted the transportation of ammunition and provisions to a system whereby each poststation would relay official personnel and their baggage to the next station along the route.

The new government assumed authority over the realm's five major routes and side roads, and on April 23, 1868, it set up a poststation authority in Kyoto. In 1711, the shogunate had established official fares for the poststation system: 20 *mon* per person per league per day, and twice that for each horse. Those rates were successively raised in later years. The new Meiji government set fares at 7.5 times the 1711 standard, which was the real level of fares at the time. However, during the Boshin

[15] Imai Nobuo, *Ezo no yume* [The Dream of Ezo] in *Nanka kikō* [The Southern Advance] *Hokkoku sensō gairyaku* [A Rough Account of the War in the Northern Provinces] *Shōhōtai no ki* [An Account of Corps of the Piercing Halberd] eds. Ōtori Keisuke and Imai Nobuo (Tokyo: Shin Jinbutsu Ōraisha, 1998), p. 208.

War inflation soon made the official, Meiji government rate obsolete, as it turned out to be much lower than the de facto market price.[16]

By April 1868, the new government enacted levies that required villages near poststations to supply personnel and horses for military transport. The government imposed these levies across the realm, even on previously exempted villages. Meiji leaders emphasized that these were temporary wartime measures and that "exemptions would resume immediately on the conclusion of the expeditionary war." They did not keep their promise.

Important military equipment, too valuable to be entrusted to support personnel, had to be transported by the expeditionary forces themselves. Each domain's military was permitted coolie laborers for this purpose designated as "military porters" or "camp porters." As was the case with Tokugawa units, these included noncombatant servants (*hōkōnin*) at the bottom end of the retainer hierarchy. To secure the necessary manpower, domains also often hired local peasants who had no relationship to the retainer hierarchy. A quartermaster, appointed by each domain, took responsibility for necessary provisions and their transport. He also assumed the duties of supplying ammunition and provisions for men in the field and fodder for horses. In addition, he supervised financial matters, and assured evacuation of wounded to hospitals. The quartermaster therefore combined the logistical roles of the modern military's transport corps, accounting department, and medical staff. Despite logistical exigencies of war and theoretical plans drawn up in advance, many people fled from the poststations when battles occurred. As a result, few remained to carry artillery and ammunitions to battlefields. Therefore, for all intents and purposes, the existing poststation system ceased to function.[17]

The new government appointed three lords from the minor northern Kanto domains of Kurobane, Otawara, and Karasuyama to be in charge of provisioning imperial forces, granting them the direct authority to commandeer peasants from agricultural villages to serve as military porters, a power beyond that normally enjoyed by an individual lord in peacetime.

Traditional methods predominated in war finance. On February 16, 1868, the new government decided that it needed to raise 3 million *ryō* to fund the war. To meet that goal, the government demanded that merchants in Kyoto and Osaka provide money, and forced villages and merchant

[16] Yamamoto Hirofumi, *Ishinki no kaidō to yusō* [Roads and Transportation at the Time of the Meiji Restoration] (Tokyo: Hōsei Daigaku Shuppan-kyoku, 1972), pp. 17–18.
[17] Hōya, *Boshin sensō*, pp. 132–133.

associations to contribute as well. In addition to these resources, the government borrowed and procured a total of 4.64 million *ryō* during the Boshin War.[18]

Also on February 7, the new government issued an order halving the amount of annual tribute for its allied domains. While the object of this ploy was to win the hearts of those in enemy territory, the unexpectedly rapid pacification of western Japan prompted the new government to rescind its original proclamation, and covertly renege on the tribute reduction order.[19] The government did not officially announce this step, except in the form of responses to direct inquiries. This led to incidents such as that which befell the Sekihō Brigade, a grassroots militia. The government labeled the unit a "false army," and ordered the execution of its members for spreading word of the purported tribute reduction. The cancelation of the promised reduction in annual tribute proved to be indispensable for funding the war.[20]

In July, the new government began to issue large amounts of bills denominated in gold. In the first two years, it issued 48 million yen (*ryō*) worth of "Great Council of State" notes and 7.5 million yen (*ryō*) worth of "Civil Department" notes. Because its procurement of resources had stalled, the government financed its forces using promissory notes to pay for military resources. In addition, the government financed its expeditionary forces using booty – gold, rice and other various grain crops – seized from Tokugawa territories. It also benefited from voluntary contributions proffered by Edo-based lords and bannermen who sought to demonstrate their allegiance to the new regime.

Local procurement of cash by military expeditions and remittances from the accounting offices of the new government necessitated the use of exchange houses. The new government tapped the three major mercantile houses of Mitsui, Ono, and Shimada to act as exchange authorities. Serving as pursers, representatives of these families accompanied each of the three expeditionary forces. The Meiji government thus supported the advance of its new army by drawing on large amounts of credit and by creating special capital reserves.[21]

The active role of the emperor was a key factor in military centralization. On April 6, 1868, the emperor personally proclaimed the famous Charter Oath, which included swearing before the divine spirits of Japan

[18] Sawada Akira, *Meiji zaisei no kisoteki kenkyū* [A Basic Study of Meiji Finances] (Tokyo: Kashiwa Shobō, 1966).
[19] Miyachi, "*Fukko-ki gen-shiryō no kisoteki kenkyū*," pp. 66–139.
[20] Hōya, *Boshin sensō*, pp. 137–138.
[21] Mitsui Bunko, ed., *Mitsui jigyō shi* [The History of Mitsui Business Enterprises] *honpen 2 kan* [Original edition, Part 2] (Tokyo: Mitsui Bunko, 1980), pp. 3–23.

(*kami*) that "deliberative assemblies shall be widely established and all matters decided by open discussion." Court nobles and lords who participated in the ceremony paid homage before the *kami* and to the emperor, each signing an oath to follow direct, imperial rule. Other lords and nobles subsequently signed the document over the course of the year. Meiji leaders took a strict stance toward those who stood against their new regime by invoking a reference to the power of the *kami* read aloud on the occasion of the official signing: "traitors and enemies [to the new regime] shall perish." On April 12, 1868, the Emperor Meiji personally dedicated shrines in the imperial palace to four *kami* associated with war, deities that appeared in the mythical conquest of Izumo by the Yamato state.[22] With this "war-deity ceremony," Meiji leaders created a new sacred celebration that drew on myths surrounding the formation of the Yamato state, which as Mark Ravina explores in his chapter, was a step they considered in the creation of a national paper currency as well.[23]

Meiji leaders also employed strategic devices, such as war memorials, to emphasize the sacred mission and legitimacy of the "government armies" led by the Chōshū-Satsuma alliance. On February 5, 1868, they rewarded lords who had distinguished themselves in the Battle of Toba–Fushimi, and recognized as "national war martyrs" those who died in battle from the new ruling coalition of domains of Satsuma, Chōshū, Hiroshima, Tosa (present-day Kōchi Prefecture), and Inshū (present-day Tottori Prefecture). Moreover, shrines were established to memorialize the souls of these dead loyalists. On July 21, 1868, a ceremony commemorating the spirits of the dead was held in the grand hall of the west citadel of Edo Castle. In Kyoto, the construction of a shrine to venerate the war dead began in the Higashiyama temple district. It enshrined not only the dead from the Boshin War but also those "martyred" in service of the state since the arrival of Commodore Perry in 1853. In addition, in August 1868 a ritual service to comfort the souls of the war dead was held on the grounds of the Kawahigashi military training ground in Kyoto.[24] Similar ceremonies were also performed on battlefields, as well as in domains supporting the new government. In 1869, construction began on a shrine in Tokyo, later named Yasukuni Shrine.

Meiji leaders emphasized their legitimacy by directing that their soldiers carry gold brocade banners to distinguish them as members of

[22] These were Amaterasu-ōmikami, Ōkuninushi-no-ōkami, Takemikazuchi-no-ōkami, and Futsunushi-no-kami.
[23] Hōya, *Boshin sensō*, pp. 153–155.
[24] Kishimoto Satoru, "Boshin sensō to shōkonsai – Tottori shōkonsha kigen" [The Boshin War and Ceremonies for War Dead – The Origin of Shrines to Commemorate War Dead in Tottori] *Tottori chiiki shi kenkyū* 4 (2002): 49–58.

"government armies" in contrast to the rebel contingents. These pennants were designed by a scholar of National Learning, Tamamatsu Misao, reputedly based on an essay, "A Consideration of the Imperial Banner," penned by the Heian era scholar, Ōe Masafusa. Shinagawa Yajirō, a military officer from Chōshū, played a hand in developing these banners. He possessed a flair for propaganda and probably composed the loyalist ballad, "Go-all-the-Way" (*Tokoton-yare-bushi*). Following its debut in Kyoto, troops often sang it during marches. Further propaganda devices were gold cloth epaulets, conceived of as "scraps of cloth" from the brocaded banners. These were distributed beginning on March 13, 1868 to honor troops from the domains who served in the expeditionary forces and mark their places in the "government army."[25]

A Social History of the Battlefield

The Boshin War was Japan's first war with the full-fledged use of contemporary modern weapons clashing in battles against early modern fighting strategies. Firefights with rifles exemplified the shift in combat techniques. When encountering an enemy force, soldiers would look to find cover or gain the high ground before starting a firefight. Based on extant records, it appears that firefights often began at distances between 300 and 500 meters. Long-distance firefights consumed large amounts of ammunition. A 128-man rifle company led by Ogawa Sennosuke from the Kaga Domain (today's Ishikawa Prefecture) used 46,000 rounds of ammunition in battles on the Hokuetsu Front during the first half of 1868.[26] During a single day of fierce fighting, one rifleman would fire fifty to sixty bullets. However, because engagements usually occurred at distances of approximately 500 meters, the accuracy of the shots fired was quite low.

Perhaps the most dramatic example of sustained early modern battlefield practices was the taking of heads of enemies wounded or killed by gunfire. Even when continuing an advance, the taking of heads would begin as soon as the battle lulled, contrary to the explicit orders of field commanders. To inspire victory, the gathered heads of enemy soldiers would be left exposed to the elements on the battlefield. Records of battles in the Tohoku region reveal that enemy heads would be loaded into sacks and then exposed to the elements below castles of a defeated lord.

[25] Asakawa Michio, "Kenmon gumon kaisetsu kōnā – ishin dōran to nishiki no mihata" [Explanation Corner for Clever and Foolish Questions – The Upheaval of the Meiji Restoration Period and the Nishiki no Mihata Banner] *Rekishi to chiri* 582 (March 2005): 28–33.

[26] Noted in Ogawa's diary, which is held in the Ishikawa Prefectural Museum of History.

Soldiers captured alive were put to the sword. William Willis, a physician attached to the British Legation, treated wounded soldiers in hospitals established by the new regime. He was appalled to find that, "wounded prisoners received almost no sympathy and were usually beheaded." In November 1868, Willis went to Niigata, which had surrendered, to continue treating the wounded. He wrote that, "to date, I have yet to see even one wounded enemy prisoner," which he attributed to the fact that "wounded enemy soldiers are slain indiscriminately."[27] This suggests that the systematic killing of adversaries was a particular characteristic of Japanese warfare in the mid-nineteenth century, possibly inspired by popular tales written during the Tokugawa peace detailing how samurai should show no mercy in battle.

The general staff of the government army that captured Wakamatsu, the castle town of Aizu, issued the following circular memorandum expressing the need to punish atrocities:

> We have received reports of cruel behavior such as carving flesh from the bellies of dead rebel soldiers (*zokuhei*). Such behavior is reprehensible. Although called rebel soldiers, they too are children of the empire, and all men are ordered to comply to prevent such violent treatment.[28]

As a battlefield custom, plunder was a common practice and recognized as legitimate behavior. The government army issued regulations stating that: "[P]lundered material including guns, ammunition, as well as specie and caches of grain, are to be reported to central command." Although surrendered items were supposed to be forwarded to headquarters, after the war advanced into Tohoku, the government ordered that equipment such as artillery and ammunitions gained as plunder by each domain instead be sent to the government's munition office. It directed that specie and caches of grain be delivered to the purser, with one-third of the plundered goods given as a share to the domain whose troops had procured the booty. Although weapons and provisions taken directly from the enemy forces were legitimate plunder, shortages of foodstuffs and materials meant that anything found in enemy territory became a target. In short, sanctioned expropriation devolved into simple looting.

[27] William Willis and Ōyama Mizuyo, trans. *Bakumastu-ishin o kakenuketa Eikokujin ishi*: yomigaeru Wiriamu Wirisu monjo [An English Physician Running through the *Bakumatsu* Restoration Period: Reviving the Documents of William Willis] (Tokyo: Sōsendō, 2003), pp. 380–381. See also Hugh Cortazzi, *Dr Willis in Japan, 1862–77: British Medical Pioneer* (London: Athlone Press, 1985).

[28] Twelfth day of the ninth month (October 27, 1868). "Amano Yūji gunryo nisshi" [The Military Travel Journal of Amano Yūji] in "Tottori-hanshi Amano Yūji nisshi," Unpublished documents, Historiographical Institute, University of Tokyo.

Inhabitants of villages near battlefields feared arson above all. A much-favored combat strategy for breaking open a tactical situation would be to set fire to a homestead. In addition, in areas where the enemy had the upper hand, the opposing side would set fire to houses with the aim of depriving the enemy of its base of support and dampening its strength. While arson was considered a legitimate combat tactic, both sides prohibited indiscriminate incendiarism. The anti-Meiji forces issued commands declaring that: "burning houses without the order of a superior would be punished as a grave offense, similar to arson." Nonetheless, villages allegedly allied with the enemy were burned without compunction. As the tide war approached, villagers would carry away their household goods and even parts of their homes, transporting them to the hills or forests where they hid. This suggests the difficulty of preventing fires to private homes. We know that some evacuated their homes after removing the floorboards.

Finally, both the government army and the Northern Alliance conscripted a large number of people as military porters when the Boshin War reached the Tohoku region. Young people in urban areas and those traveling in the mountains or between towns were on the lookout for military band members, who might conscript them to serve as laborers. This random requisitioning practice of civilians was a wartime custom that dated back to the sixteenth-century Sengoku [Warring States] Period.[29]

Conclusions

Despite its short duration, the Boshin War transformed military technology, practices of warfare, and social organization. The war acted as a catalyst in the adoption of Western-style military systems, which were quickly implemented because of rapid advances in rifle technology. Yet importantly this new system included existing feudal features of military mobilization. Although both the shogunate and individual domains had adopted elements of Western military technology, reformers within the shogunate proved unable to effectively turn the use of new technology into a uniform, national military system of organization. By contrast, the leaders of Satsuma and Chōshū, who seized the reins of power and established a new government in the name of the restoration of imperial rule, successfully accomplished this military transformation on a national scale.

[29] Fujiki Hisashi, *Zōhyō tachi no senjyō: Chūsei no yōhei to dorei-gari* [The Battlefield of Rank and File Soldiers: Medieval Mercenaries and Slave Hunting] (Tokyo: Asahi Shinbunsha, 1995).

This military revolution shattered multiple, early modern conventions. The strengthening of the central military authority was achieved by specific state interventions in the military organizational authority of individual feudal rulers. Although continuing to fight after the Battle of Toba-Fushimi, the remnants of the deposed shogunate proved unable to push through similar reform measures even during the war. The political and organizational differences in the character of both sides in a moment of crisis became apparent.

Overall, the Boshin conflict demolished the autonomous military organizational authority and capability of lords, thus enabling the central state to intervene in the feudal territorial system. The war demonstrated that early modern military forces with matchlock muskets, bows, and spears and mounted warriors were obsolete. As a result, the centuries-old feudal military system, with samurai families as its core units, collapsed. As Takagi Shōsaku has argued, the adoption of a military system in response to the new technologies introduced from the West had repercussions beyond the battlefield and shook the very foundations of the early modern status system and facilitated the transition to a modern, centralized form of governance. Yet to develop a unified national army, a key part of the establishment of a centralized nation-state, Japan had to experience what can be termed a second coup d'état. This came with the abolition of domains and the establishment of the prefectures in 1871, a move that completely eliminated the feudal territorial system and eventually led to the dismissal of the hereditary warrior aristocracy as the governing class of Japan.