

The Impact of Manchu Institutions on Tibetan Military Reform

6th Nordic Tibet Conference, Stockholm, 5-6 May 2007

by Michael Fredholm

Stockholm University

ABSTRACT

Tibet had since at least the eighth century been known for its heavily armoured cavalry. However, the era of the armoured cavalryman ended in Tibet in the mid-seventeenth century following the introduction of firearms from in particular Bhutan. The Tibetan military then underwent a transitional phase from the mid-/late seventeenth to the end of the eighteenth century. There was still no standing army, and the key fighting component of the army - the noble cavalymen - still used personal if no longer horse armour, although of the lighter chain-mail of the Indo-Persian style that they had encountered in Bhutan rather than the old lamellar style derived from Inner Asia.

A Tibetan standing army was only formed in the winter of 1792/1793, in a reform pushed through by the Manchu commander in Tibet. The context was that of the Gurkha invasion of Tibet in 1791 and the decisive defeat of the Gurkhas by a combined Qing and Tibetan army in 1792. The new, native Tibetan regular soldiers were trained in the Qing manner and had Chinese-style uniforms. The Tibetan army officers seem to have been included in the system of Qing mandarin grades. Their task was to guard the southern borders of Tibet.

By 1857, military reform was again urgently needed. However, the Tibetan leaders were reluctant to divert funds from religious activities to the military. Many clerical leaders also opposed, on principle, the establishment of a modern military force under secular command. A few modern rifles were acquired, but fundamentally the Tibetan army continued to rely on the weapons technology, organisation, and tactics of the eighteenth century. When the Tibetan army was called upon to confront the British invasion of Tibet in 1903-1904, it was woefully inadequate.

The negative Tibetan clerical view on the need for military expenditures continued well into the twentieth century, when renewed attempts to modernise the Tibetan military were similarly thwarted. The end result is known to all; when Chinese troops invaded Tibet in 1950, the Tibetans did not stand a chance and independent Tibet was doomed.

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TIBET'S MILITARY HISTORY

Tibetan military history is a largely neglected field of study. One reason for this lack of attention has arguably been the interest in Tibetan Buddhism, which would seem to have attracted most attention from researchers and visitors alike. Besides, the high visibility of old weapons, suits of armour, and military equipment in certain Tibetan religious ceremonies - and the ease with which foreign observers could take photographs of these ceremonies - only served to distort the understanding of the Tibetan military system. After all, if in the 1940s Ilya Tolstoy (1903-1970), Brooke Dolan (1908-1945), and others could capture heavily-armed, mediaeval-style Tibetan warriors on film, surely there was little else to add? Was not this firm evidence on how the old Tibetan army looked and behaved?

Alas no. The mediaeval-style warriors that Tolstoy and Dolan saw had no relationship to the Tibetan army as faced, and fought, by those professional soldiers who invaded Tibet in the nineteenth and early twentieth centuries. A few such foreign soldiers, at least during the Younghusband expedition in 1903-1904, brought cameras of their own, and the Tibetan soldiers that they encountered, and thus documented, were almost as far removed from the mediaeval types seen by Tolstoy and Dolan as they themselves were separated from their mediaeval ancestors. Although antiquarians such as Dr Laurence Austine Waddell (1854-1938), the

leading British Tibetologist of the time, in 1903-1904 dug out old pieces of obsolete armour from long since abandoned armouries and had civilians dressed up in them for photographic documentation, he was far more interested in Tibetan antiquities than in the real Tibetan soldiers facing the British expedition. Besides, comparing the various sets of photographs, and reading the reports from the month-long Great Prayer Festival, or Monlam Chenmo (*smon lam chen mo*), held annually in Lhasa during the first month of the lunar year, made it clear that Tolstoy and Dolan had seen, and photographed, a temple pageant with the stated purpose of recreating illustrious events in history, including from the distant period of the Tibetan kings. While the weapons and suits of armour had once been used, they had long ago been abandoned as unsuitable for purposes of war. Moreover, it would seem that the Tibetans at the time knew that they were dressing up for a historical re-enactment. Tolstoy and Dolan saw a hodge-podge of arms and armour, from widely different historical periods, worn by men who had no real knowledge of how these weapons had been used, or for that matter, in the case of the suits of armour, how to maintain or even wear them properly. Most suits of armour, in particular, were in bad condition, and it is apparent from the photographs that the men who wore them had little idea on how to put them on in the correct way.

Having neither any knowledge of Tibetan, nor any particular expertise in Tibetan history, I left it at that, not pursuing the matter further. Surely somebody more qualified would face up to the challenge and resolve the many questions on the Tibetan nineteenth-century military system?

A very limited amount of information was published in Chinese, and I learnt of a work in Tibetan,¹ which in any case I could not read. Then in early 2006, a detailed and thorough study of Tibetan arms and armour finally arrived.² Although an excellent work, well suited to the needs of collectors and museum curators in understanding and identifying the various types of old Tibetan arms and armour, it was written strictly from the point of view of the art historian, not the student of history.

Having a few years previously concluded my own study of the Manchu (Qing) military system, I decided not to wait any longer for a more qualified hand. Instead I began to draw up my own notes on the Tibetan military system, and in particular on the impact of Manchu institutions on Tibetan military reform. For a military reform took place in Tibet following the Gurkha invasion of Tibet in 1791 and the combined Qing and Tibetan retaliation in 1792. In addition, a less well-documented but nonetheless very real military reform had taken place earlier, in the mid-seventeenth century, as a response to the introduction of firearms.

This paper proposes to investigate in particular the second, Manchu-derived, Tibetan military reform. But first it will be necessary to clear up a few misunderstandings with regard to the Western sources of the early twentieth-century Tibetan army, and in particular the many photographs taken of what was purported to be real Tibetan soldiers of the time.

IMAGES OF TIBETAN WARRIORS AND THE MYTH OF TIBETAN MEDIAEVALISM

Why did the early twentieth-century Western eyewitnesses present such a distorted picture of the Tibetan military? The answer would seem to be that many of them did not. There are, in fact, a good number of eyewitness descriptions and photographs of Tibetan soldiers from professional British soldiers and a few non-biased, or at least differently biased, explorers such as Sven Hedin. Yet, the focus of attention has, so far, seemingly always been on those Western observers who stressed the ancient, mediaeval aspects of Tibetan civilisation.

The Younghusband expedition Photographs of 1903-1904

The Western observer arguably most responsible for the distorted view of the Tibetan military was Lieutenant Colonel Dr Laurence Austine Waddell (1854-1938) of the Indian Medical Service (IMS). The fact that he held a military rank should not be taken to imply that he was a career soldier. Waddell was in fact the Principal Medical Officer as well as antiquarian of the Younghusband expedition and the leading British Tibetologist of the time. He took a number of interesting photographs during the expedition, which he subsequently published in his book *Lhasa and Its Mysteries* (1906). The title of the book sums up fairly well what Waddell was really interested in, but one can just as easily let the photographs speak for themselves.

¹ Kreng ping, "bod dmag gi lo rgyus mdor bsdus," *Culture and Historical Materials Office* (CHMO) 4, 1984B, 180-207.

² Donald J. LaRocca (ed), *Warriors of the Himalayas: Rediscovering the Arms and Armor of Tibet* (New York: Metropolitan Museum of Art/New Haven, Yale University Press, 2006).



Fig. 1. (L. A. Waddell, *Lhasa and Its Mysteries* (New York, 1906), facing p.168.)

Fig. 1 is usually described as depicting a Tibetan armoured cavalryman in 1904. The man in the photograph wears a helmet and a coat of chain-mail and is armed with a spear, sword, and matchlock musket, on a partially armoured horse. He was photographed in Tibet in 1903-1904, probably by Waddell himself. However, this man is no soldier, and there is little doubt that this is a staged photograph of somebody simply dressed up in an assortment of old equipment. An attendant was apparently needed as well, to hold the horse steady. First, his chain-mail coat and helmet had gone out of date already in the late eighteenth century. Second, the horse armour, which in any case remains incomplete, had fallen out of use even earlier, already in the mid-seventeenth century. Third, all the pieces of armour that the man wears would seem to form part of the old, abandoned pieces that the British found long since abandoned in old forts and monasteries. Besides, unless the negative has been accidentally reversed, the man carries his sword on the wrong side. He might be left-handed, but this is quite unlikely, since warriors on the same side generally will carry their arms in the same way or risk hurting each other.



Fig. 2. (L. A. Waddell, *Lhasa and Its Mysteries* (New York, 1906), facing p.172.)

Fig. 2 is usually taken to depict two armoured infantrymen in 1904. The two men wear lamellar armour and carry wicker shields and matchlock muskets. They were photographed in Tibet in 1903-1904, again probably by Waddell himself. This, however, is another staged photograph of men who knew little of how to handle military gear. First, the two men are wearing their lamellar armour backwards, showing the rear rather than the front side. Second, the lamellar armour is of the type used by cavalymen, not infantrymen. Third, the lamellar armour is of the type that fell out of use already in the mid-seventeenth century. Fourth, the helmet of the man on the left appears to consist of old pieces of lamellar body armour that simply have been put together in the shape of a helmet. Finally, the armament of matchlock muskets combined with large shields is, to say the least, unrealistic and does not inspire any confidence in the military ability of these men.

But Waddell did not only stage photographs, he also provided written descriptions of the appearance of Tibetan soldiers, as he saw them, in his book:³

A few still wear iron helmets and cuirasses of the type familiar to us in medieval literature, consisting of small, narrow, willow-like leaves about 1½ inch long, threaded with leather thongs. A few also wear coats of chain-mail. The iron helmet of the cavalry was distinguished from that of the infantry, who have a cock's feather, by a red tassel or peacock's feather on the top. The high officers sometimes clothe their horse in armour, a new set of which was captured. The clothing of the horses and saddlery of the leaders was artistic and full of colour, with good carpet saddle-cloth, throat-tassels, and massive bits and stirrup-irons, silver or gold inlaid, mostly from Derge in Eastern Tibet. . . The weapons of the Tibetan warrior are numerous and picturesque. On his back is slung a matchlock or a modern rifle; in his hand he clutches a long spear; from his belt hangs an ugly long sword, one-edged, with a straight heavy blade. When guns are insufficient to go round, the remaining men carry bows and arrows, the latter of bamboo with barbed iron heads 3 inches long, also slings, and heavy shields, wooden or wicker-work, or hide with iron bosses.

Waddell's text can be interpreted in more than one way. While it is possible to read his description as evidence on the obsolescence of the Tibetan army at the time, it should be remembered that Waddell was a physician and a Tibetologist, not a fighting soldier. It is thus hardly surprising that it was the exotic, the picturesque, and apparently mediaeval aspects of the Tibetan soldier that first caught his fancy. There is even an eye-witness testimony (by David Macdonald, Waddell's assistant) to the effect that Waddell was greatly taken by some suits of mediaeval armour that he found kept in what from the description appears to have been the gonkhang (*mgon khang*), the temple devoted to protector spirits where votive arms and armour were kept, of the Jokhang monastery.⁴ Thus, Waddell describes what he and his contemporaries obviously found most exotic and eye-catching: the iron helmets and lamellar and/or chain-mail armour, "familiar to us in medieval literature" as Waddell put it. Even if a few Tibetan officers may possibly have worn such equipment for ceremonial occasions, in the same way that high Qing officers might wear ceremonial armour on certain occasions - and this in fact seems doubtful - Waddell does make it clear that they were only "(a) few" and did not show up in significant numbers, or for that matter, in uniform formations. In fact, I would argue that it is far more likely that Waddell here referred to the use of obsolete armour and weapons in religious ceremonies, which did take place in Tibet at the time, rather than any form of military activity, ceremonial or otherwise. There is no written reference by any professional military observer at the time to fighting Tibetan soldiers in armour, nor even to the use of obsolete armour by levies of civilian Tibetans or Khampa mercenaries. Besides, it is well known that at the time of the Younghusband expedition, obsolete armour was being used for temple ceremonies. This was clearly illustrated in a drawing by eleven-year-old Zhen Canzhi, the son of the secretary to the Amban (Manchu "minister," the Qing Resident) in Lhasa, who in 1903/1904 witnessed the Tibetan attempt to stop the Younghusband expedition through magical means (Fig. 3).

³ L. Austine Waddell, *Lhasa and Its Mysteries, With a Record of the Expedition of 1903-1904* (London, 1905), 168-9; cited in Donald J. LaRocca, "Rediscovering the Arms and Armor of Tibet," *LaRocca, Warriors*, 3-19, on 3-4.

⁴ Charles Allen, *Duel in the Snows: The True Story of the Younghusband Mission to Lhasa* (London: John Murray, 2004), 276.



Fig. 3. (Zhen Canzhi, 1903/1904.)

As for warriors in chain-mail armour, the only one so attired who left any impact in the written sources from the Younghusband expedition was a fighting monk (*ldab ldob*) from Sera who, alone, attacked two British officers with a sword. He was hanged for this by the British and was in any case not a regular Tibetan soldier, nor a member of the old levy or, for that matter, a Khampa mercenary.⁵ That he would have used an old coat of chain-mail from his monastery is hardly surprising.

What can one then make of Waddell's note that the "high officers sometimes clothe their horse in armour, a new set of which was captured." Waddell must have been familiar with old and obsolete horse armour, specimens of which almost certainly had been brought out of Tibet, together with other pieces of obsolete lamellar armour, since the 1880s.⁶ So what he may have seen was that Tibetan high officers, that is, generals and commandants, *sometimes* may have clothed their horses in what may have looked like armour. Yet, despite the British military successes, only one such set was captured, he claims. However, quite a few were brought back to Britain as souvenirs or trophies, but these were dug up in the storehouses of old temples, not used for military purposes by the Tibetan army. This, of course, did not prevent the Tibetologist, or indeed the mere tourist, in Waddell from noticing the exquisite workmanship of many articles of saddlery, used by the Tibetan commanders. Except Waddell's account, there is, to the best of my knowledge, no other evidence for the continued use of horse armour in Tibet up to that time. Furthermore, the situation was the same in the Qing army, which despite having abandoned the use of armour already in the eighteenth century, continued to use similar equipment - although without the actual metal armour plates - as a kind of ceremonial officer's dress. Horse armour was then only used by some officers and perhaps certain armoured guards cavalry units. It was then designed to imitate regular armour but consisted of mere padded silk or, at best, silk studded with gilt rivet-heads.

A further question concerns the use of helmets, a topic on which Waddell would seem to be very specific - although it again appears far more likely that he referred to the ceremonial, religious uses of old military equipment rather than those used by real soldiers. Waddell noted that the "iron helmet of the cavalry was distinguished from that of the infantry, who have a cock's feather, by a red tassel or peacock's feather on the top." In other words, the infantryman's helmet was adorned with a cock's feather, while the cavalryman's helmet was similarly adorned by a red tassel or a peacock's feather. On this matter, evidence is hardly complete, but this description surely echoes the armoured cavalryman's helmet of the Qing army, the helmet of whom was crowned with a tall spike or crest-tube that usually bore a tassel variously of horse hair dyed red, silk fringing, sable tails, feathers and netting, or a small red flag.⁷ Besides, the peacock's feather (*gong qiaoling*), it should be remembered, was an important award bestowed by the Qing emperor. The honour of wearing the peacock feather as a mark of imperial favour was only awarded to military officers and civil officials of the fifth grade and above. Yet, such officers existed in Tibet, and it is likely that Waddell saw some of them.

Waddell's text is of course not completely free of references to real soldiers. First, he notices that many Tibetan soldiers still in 1903 used the matchlock musket, as indeed did many infantrymen of the Qing army at the time, but others had already been equipped with a "modern rifle." There were also archers in the Tibetan army, but only "(w)hen guns are insufficient to go round." Depending on supplies, some Tibetan soldiers used modern rifles, while those who were not so lucky had to use the old matchlock muskets, or that failing, bows and arrows.

As this brief analysis shows, Waddell was far more interested in the mediaeval Tibetan soldier than the contemporary one. To successfully disentangle contemporary facts from historical commentary in his book,

⁵ Allen, *Duel in the Snows*, 270-71.

⁶ LaRocca, "Rediscovering the Arms," 3.

⁷ Robinson, *Oriental Armour*, 150.

at least with regard to the appearance of the Tibetan soldier at the time, would therefore seem almost impossible.

The Staunton Photographs of 1940 and the Tolstoy-Dolan Photographs of 1943

If Waddell's documentation raises more questions than it answers, it is far easier to solve the question of what the various sets of photographs of Tibetans dressed in armour from Lhasa in the 1940s really show. This is because all these photographs were taken during the month-long Great Prayer Festival, or Monlam Chenmo (*smon lam chen mo*), held annually in Lhasa during the first month of the lunar year. This festival featured processions of ancient warriors involving both armed men on foot from among the personal attendants of the Dalai Lama (*gzim sbyong pa*) and military-style cavalymen (*rta dmag*) provided by the old nobility. This festival was documented in photographs on a number of occasions, in particular by Hugh Richardson (1905-2000) between 1937 and 1950, Frederick Spencer Chapman (1907-1971) in 1936, Harry Staunton (1908-1945) in 1940, and Brooke Dolan and Ilya Tolstoy in 1943.⁸ That similar religious ceremonies had taken place at the time of the Younghusband expedition has already been shown through the drawing by Zhen Canzhi, which proves beyond any doubt that old armour was used for temple ceremonies in earlier times as well.

The men who in the 1940s took part in the Great Prayer Festival were equipped with old weapons and armour stored in temples. Judging from the style of the arms and armour, as well as a number of radiocarbon datings taken from surviving specimens, most of the equipment then used by men on foot (lamellar armour and the like, originally used by horsemen) would seem to date from the early to mid-fifteenth to the mid-seventeenth century.⁹



Fig. 4. (Ilya Tolstoy, 1943.)

Fig. 4, a photograph usually identified as an armoured infantryman was taken in 1943 by Ilya Tolstoy. Needless to say, he is no more a traditional Tibetan soldier than the men in the previous, older photographs. First, his lamellar armour seems broken and is not properly fastened in front, thus serving no real purpose. Second, the shoulder pieces are missing. Third, the lamellar armour is again of the type used by cavalymen, not infantrymen. Fourth, the lamellar armour is again of the type that fell out of use already in the mid-seventeenth century. Besides, the time and place of this photograph would make it pretty obvious that this was not a fighting man's gear at the time.

However, the cavalymen taking part in the festival were armed and equipped by a number of noble families. While it has been suggested that this might have been the continuation of "a practice formerly intended for the mobilization of troops in times of need,"¹⁰ the raising of troops by noble families for

⁸ LaRocca, "Rediscovering the Arms," 6.

⁹ LaRocca, *Warriors*, 6 and 96 with references, 116, 288.

¹⁰ LaRocca, "Rediscovering the Arms," 6.

purposes of war was in Tibet a practice long since lost in the past. Yet, this might well have been the origin of the practice that developed for the Great Prayer Festival. There was, apparently, a historical awareness in Tibet that warriors in the past had looked different from what “modern” soldiers looked like. Nineteenth-century depictions of traditional heroes such as Gesar (Fig. 5) show men wearing the Bhutanese style of armour that became common in the mid-seventeenth century. It was this style of armour that was being used by the retainers of old noble families in the Great Prayer Festival.



Fig. 5 (Musée Guimet, Paris.)



Fig. 6. (Ilya Tolstoy, 1943.)

The photograph in Fig. 6 was also taken at the time of the Great Prayer Festival in Lhasa in 1943, and again probably by Ilya Tolstoy. These horsemen are no more traditional Tibetan soldiers than the rest, but this time we are getting closer to the real thing. Their gear is that of the noble cavalry of the mid-eighteenth century, from the time just before the Manchus undertook a thorough reform of the Tibetan military. Only the chain-mail coat would seem to be missing. And these men were reportedly nobles and their retainers who, knowing that they took part in a historical pageant, worked to keep the old fighting methods alive, if only for sport.¹¹

¹¹ LaRocca, “Rediscovering the Arms,” 18 n.11.



Fig. 7. (Brooke Dolan, 1943.)

Another photograph of such men, but this time with chain-mail coats, was taken by Brooke Dolan on the same occasion in 1943 (Fig. 7).



Fig. 8. (Harry Staunton, 1940.)

There is also a photograph of such men as seen from the front, taken by Harry Staunton in 1940 (Fig. 8).

Photographs of Real Tibetan Soldiers

Despite the popularity of the mediaeval-looking photographs so far presented, photographs of real Tibetan soldiers do exist.



Fig. 9. (Frederick M. Bailey, 1904.)

Fig. 9 shows a photograph by Frederick M. Bailey (1882-1967), who was a fighting soldier, taken in 1904. It shows what the Tibetan standing army really looked like a hundred and ten years after the Manchus formed it. The men were uniformly armed with what in much of Tibet and China was regarded as reasonably modern weapons. They also presented a uniform appearance, although this was more by chance than design, since the uniforms introduced by the Qing fell out of use already in the first half of the nineteenth century (see below).



Fig. 10. (Sven Hedin, 1901.)

Another photograph, taken in 1901 by Sven Hedin (1865-1952), shows a cavalry unit of the Tibetan army (Fig. 10). Again the men are uniformly armed and equipped, and there is not a single piece of obsolete armour within sight.

The Collectors of Antique Tibetan Arms and Armour

One can assume that the photographs taken by antiquarians such as Waddell subsequently were taken as evidence that the many suits of ancient armour and weaponry that were brought back to Europe and the United States as souvenirs really were those used by Tibetan warriors. Fairly large numbers of Tibetan arms and armour were brought out of Tibet from the 1880s onwards, by diplomats, sinologists, and missionaries alike. Many have ended up in Western museums.

When armour fell out of fashion in Tibet, most remaining suits of armour appear to have ended up in monasteries. There they remained until needed for religious rituals, or were looted or given away as diplomatic gifts. An example of the latter is the complete suit of Tibetan armour with helmet that in 1913 was given by the Thirteenth Dalai Lama to the King of England, George V (r. 1910-1936). By then the antiquarian instincts of Western collectors had not yet moulded the general perception of Tibetan arms and armour. The suit of armour was on this occasion described as follows: "This kind of armour is no longer made, but it occasionally worn at national festivals."¹² Indeed, most surviving examples of armour, whether collected at this time or in present, surviving collections, and whether of lamellar or leather, have been dated to from the early to mid-fifteenth to the mid-seventeenth century. This has been confirmed by carbon-14 testing.¹³

Except diplomatic gifts, another source for these old suits of armour in the early twentieth century were abandoned Tibetan fortresses. Edmund Candler (1874-1926), a journalist who accompanied the Younghusband expedition, in 1903 noted that the fortress called Phari Jong (*phag ri rdzong*) was in an abandoned state, and its rooms were "filled with straw, gunpowder, and old arms" that "the Tibetans themselves abandoned as rubbish. The rusty helmets, shields, and breastplates are made of the thinnest iron plates interlaced with leathern thongs, and would not stop an arrow. The old bell-mouthed matchlocks, with their wooden rests, would be more dangerous to the Tibetan marksmen than the enemy. The slings and bows and arrows are reckoned obsolete even by these primitive warriors."¹⁴ The Tibetologist, Waddell, was there too. He later described "the courtyard strewn with old lumber, chain-armour, iron helmets, spears, swords, matchlocks, and miscellaneous rubbish."¹⁵ That the Tibetan soldiers no doubt had removed any useful weaponry before they left the fortress open to the invaders, and only abandoned what was broken or obsolete, as Candler surmised, seemed of little concern to Waddell.¹⁶

¹² LaRocca, "Rediscovering the Arms," 10, 18 n.23.

¹³ See, e.g., LaRocca, *Warriors*, 6 and 96 with references, 116, 288.

¹⁴ Edmund Candler, *The Unveiling of Lhasa* (London: Edward Arnold, 1905), 65-66.

¹⁵ LaRocca, *Warriors*, 67; citing Waddell, *Lhasa*, 98.

¹⁶ Although Phari Jong occupied a strategic location (there was a *dahpon* of Phari, who was responsible for the entire Chumbi Valley), and had a small garrison (sufficiently large to have "scores" of women and dependents), the fortress was abandoned by all soldiers (but not their dependents) immediately before the British reached it. Allen, *Duel in the Snows*, 63. The latter attributed this to inadequate Tibetan strategy. *Ibid.*, 71; *The British Invasion of Tibet: Colonel Younghusband, 1904* (London: The Stationary Office, 1999; first published in 1904), 196. However, the fort was located on the bare, windswept Phari plateau, which was notoriously unpleasant even for Tibetans. Some townsmen and dependents of the garrison lived in or near the fort, but the British never saw any military activity there. Allen, *Duel in the Snows*, 69-70. The fort might indeed have been regarded as impossible to defend.

Despite all this evidence for the lack of use of such obsolete military gear, the instinct to assume that the warriors of Tibet remained mediaeval into the twentieth century has been difficult to overcome among Western academics. A few otherwise most knowledgeable researchers have, for instance, concluded that “some” suits of lamellar armour and horse armour were still being used at the time of the Younghusband expedition in 1903-1904, and that they, due to certain so far unidentified numbers on several extant suits of lamellar armour, which some have suggested might have been arsenal or regimental inventory numbers,¹⁷ “probably” remained kept in armouries at regional fortresses (*rdzong*) or maintained by noble families for use by militias or by local levies called up in times of need.¹⁸ This appears most unlikely. Suits of armour must be sized according to the man who wears it, and I know of no time or place when an armoury for real soldiers disregarded this fact of life.

Another possible, and in my opinion far more likely, explanation is of course that the armour was so inventoried for its use in temple ceremonies. There is a long-standing and widespread tradition in Tibet of depositing votive arms in monasteries and temples. As for the mysterious numbers, their meaning has not yet been deduced, and even if they really are inventory numbers, it would seem far more likely that they, if so, were the inventory numbers of the temples to which the suits of armour were given when no longer deemed useful to its owner. As surviving photographs clearly show, the participants in the religious ceremonies in which suits of armour were used cared little for how they wore their equipment, and whether it fitted their bodies, as in any case their lives did not depend on it. Of the arms and armour that were photographed in Lhasa at the time of the Great Prayer Festival, that of the armoured infantrymen is believed possibly to have been stored in the *zhol*, the village at the foot of the Potala Palace in Lhasa, while that of the cavalry, as has been suggested by Hugh Richardson, was perhaps provided by individual noble families.¹⁹ That noble families in the early twentieth century still could scrape together sufficient gear to provide a few armoured cavalymen to a temple ceremony would seem very likely; that they would expect to do so in times of war is far less so.

THE TIBETAN MILITARY REFORM OF 1792/1793

Earlier Tibetan Military Reform Processes

Tibet had long, since at least the eighth century,²⁰ been known for its heavily armoured cavalry mounted on barded horses, of the model that used to be common throughout Inner Asia. However, the era of the heavily armoured cavalryman ended in Tibet, as it did elsewhere for similar reasons, in the mid-seventeenth century following the introduction of firearms in the early decades of that century from the countries to the west and south, and in particular from Bhutan.²¹

The Tibetan military then appears to have undergone a transitional phase from the mid-/late seventeenth to the end of the eighteenth century. There was still no standing army, and the key fighting component of the army - the noble cavalymen - still used personal if no longer horse armour, although of the lighter chain-mail of the Indo-Persian style that they had encountered in Bhutan rather than the old lamellar style derived from Inner Asia.

In the mid-eighteenth century, there were plans, probably never realised, for a Tibetan standing army that altogether would have consisted of ten thousand cavalry and fifteen thousand infantry.²²

The Qing Reform of the Tibetan Military

A Tibetan standing army was only formed in the winter of 1792/1793. The context was that of the Gurkha invasion of Tibet in 1791 and the decisive defeat of the Gurkhas by a combined Qing and Tibetan army in 1792. This reform was pushed through by the then Manchu commander in Tibet. Earlier attempts, no doubt even then inspired by the Manchu military system, had been made to form a standing army, but these had

¹⁷ LaRocca, *Warriors*, 52; referring to H. G. Beasley, “Tibet: Notes on Laminated Armour,” *Ethnologia Cranmorensis* 2 (1938), 18-22, on 20-21. What Beasley actually suggested was: “It would seem that these suits, as well as the necessary weapons, were kept in proper armouries connected with the larger *monasteries* [my italics], for on the leather skirts pendant below the actual mail are found Tibetan characters indicating the troops of men to whom they belonged.”

¹⁸ LaRocca, “Rediscovering the Arms,” 11.

¹⁹ LaRocca, “Rediscovering the Arms,” 6, 11-12.

²⁰ Christopher I. Beckwith, *The Tibetan Empire in Central Asia: A History of the Struggle for Great Power among Tibetans, Turks, Arabs, and Chinese during the Early Middle Ages* (Princeton, New Jersey: Princeton University Press, 1987), 110 n.7.

²¹ For some details on the introduction of firearms to Tibet, see Michael Fredholm, *Eight Banners and Green Flag: The Army of the Manchu Empire and Qing China, 1600-1850* (forthcoming, 2007).

²² Luciano Petech, *China and Tibet in the Early 18th Century: History of the Establishment of Chinese Protectorate in Tibet* (Leiden: E. J. Brill, *T'oung Pao* 1, 1950), 230-31.

been ineffective and largely without results. So when the Qing had pushed the Gurkhas back into Nepal, they perceived the need to establish a functioning, standing military force in Tibet as well. The new, native Tibetan standing army was based on the Qing army and meant to be able to guard the southern borders of Tibet on its own against both native rulers and the British in India. Tibet would thus again serve in the role of a buffer state, a role for Tibet which Chinese leaders such as Yang Yiqing (1454-1530) had argued as early as in 1505, under the Ming dynasty.²³

Since it was the Qing military under the Manchu general Fukang'an (d. 1796) which had defeated the Gurkha invaders, and Tibet remained a Qing protectorate, it was not surprising that the Qing army was regarded as a pattern for the new Tibetan army; it had a, by then, well-deserved reputation for efficiency and had proven its worth against first Mongol, then Gurkha invaders.

A new Tibetan military force was thus created in the winter of 1792/1793.²⁴ In 1793, Fukang'an drew up what would become the Imperial Ordinance of 29 Articles for the More Effective Governing of Tibet, which among other reforms also established a standing force of Tibetan troops. The new Tibetan army was in operation at the latest by 1794, when the Qing military bestowed rewards on, among others, men who were described as Tibetan troops stationed on the border who had participated in military manoeuvres, an activity that the old levy would not have been involved in. Fukang'an fixed the number of Tibetan troops on active service at 3,000 - not a great number but equal to that of most Qing expeditionary forces. To this number, it seems, should be added the officers, who (which will be shown below) were at least 162 in number.²⁵ The new, native Tibetan standing army was based on the Qing army. Tibetan regular soldiers were trained in the Qing manner, based on the training of the Chinese soldiers of the Qing army, the Green Standards (*lü ying*). Being known in Tibetan as "Chinese-trained" (*rgya sbyong*; *rgya* being the colloquial name for Chinese in Tibet²⁶), the new force consisted of two main components: regular troops on active service and the reserve or home guard (*yul dmag*, "regional army"), which consisted of former regulars who remained at any moment subject to recall into active service. Those on active service served for three years in exchange for food and what may have been a monthly salary in silver (whether this was paid regularly or not remains unclear; the troops also received other monetary rewards from time to time²⁷). According to a British intelligence report, the rest were on half-pay, but this might be a misunderstanding based on conditions in the British army at the time. The regular army was thus said to consist of 6,000 men, half of whom were under arms and the other half of whom remained at home.²⁸ All soldiers were recruited locally, and after recruitment, they became exempted from corvée duty and taxation.²⁹

In addition to the standing Tibetan army, there was also a standing force of Dam Mongol soldiers in northern Tibet. They received the same payment, in food, as the Tibetan soldiers, but they also received an additional food subsidy of 0.9 taels of silver per year. The Dam Mongol soldiers remained under the direct control of the Qing Amban in Lhasa, perhaps even after 1821 (see below). They too, as other Tibetan and Qing troops, were eligible to receive rewards in times of wars, inspections, and manoeuvres.³⁰

Organisation and Pay

The lowest unit in the Tibetan army was the squad, commanded by a warrant officer called *chupon* (*bcu dpon*, literally "leader of ten"), a number of which formed a platoon consisting of 25 men, commanded by a *dingpon* ('bring dpon, "middle leader," a title perhaps best translated as lieutenant; in Tsang reportedly known as a *ske ngo*³¹). Five platoons constituted a company of 125 men, under the command of a *gyapon* (*brgya dpon*, "leader of a hundred," perhaps best translated as captain). Two companies formed a battalion, under the command of a *rupon* (*ru dpon*, "line leader" or major). Two battalions formed a brigade of 500 men under the leadership of a *dahpon* (*mda' dpon*, "arrow leader" or lieutenant colonel; whether this title

²³ Roger Greatrex, *Smuggling or Trade? Commerce on the Eastern Tibet Border (1400-1800)*, presentation, 6th Nordic Tibet Conference, Stockholm, 5-6 May 2007.

²⁴ To be specific, in a memorial to the throne dated the 11th day of the Twelfth Month of the 57th year of the Qianlong reign period, which corresponds to early 1793.

²⁵ Chen Xiaoqiang, *The Qing Court's Troop Deployment in Tibet and Its Expenditure* (Beijing: China Tibetology Publishing House, 2005; also available on www.tibet.cn).

²⁶ Sarat Chandra Das, *Journey to Lhasa and Central Tibet* (New Delhi: Manjusri, 1970), 52.

²⁷ Chen, *Qing Court's Troop Deployment*.

²⁸ Das, *Journey to Lhasa*, 180. A recall into active service was in December 1881 witnessed by the Indian intelligence agent Sarat Chandra Das, who later described how Delah Tondub, the head of the reserve or home guard (*yul dmag*) received an order from Khamba Dzong that he and his force must be ready to proceed at once to the Lachan boundary, fully equipped with matchlocks, lances, swords, slings, and other necessary equipment. *Ibid.*, 40.

²⁹ Chen, *Qing Court's Troop Deployment*.

³⁰ Chen, *Qing Court's Troop Deployment*.

³¹ *British Invasion*, 65, 159.

was inspired by the Manchu title of the same meaning or of older origin remains unclear since at present it only suggests the act of shooting a weapon).³²

Tibetan regular soldiers trained in the Qing manner wore the Manchu queue and, at least up to the mid-nineteenth century, had Chinese-style uniforms. In the first half of the nineteenth century, these might include blue jackets, reportedly with the usual white disc on breast and back, but in this case with the characters *fanbing* (“foreign soldier”).³³ By the late nineteenth century, it was reported that Tibetan soldiers were usually no longer wearing Chinese-style uniforms, although some wore black jackets.³⁴ By the early twentieth century, Tibetan soldiers nonetheless presented a fairly uniform sight since all wore normal Tibetan dress. The officers from the rank of *gyapon* and upwards, when dressed as Qing officers, wore hat buttons that would seem to indicate that they were included in the system of mandarin grades (more on which below). A *gyapon* would then be the equivalent to the 6th rank, a *rupon*, 5th rank, and a *dahpon*, 4th rank. The ranks of *dingpon* and *chupon* wore only brass hat buttons which would seem to indicate that they carried no official mandarin grade.³⁵ Officers, even low-ranking ones, were usually mounted on horse-back.³⁶

The Tibetan army by some accounts at first consisted of about 3,300 Tibetan and 1,450 Qing troops. Recruits (known as *dماغ mi*, “army soldiers”) appear to have been provided by local landholders who had been granted arable land with the obligation to provide and support a soldier. In 1846, the Tibetan and Qing units were separated from each other within the Tibet army. The Tibetan force remained unchanged until 1913, when it consisted of about 3,000 troops, roughly 1,800 men from the province of Ü (*dbus*) and 1,200 from the province of Tsang (*gtsang*).³⁷

Until 1821, the Tibetan troops remained under the direct control of the Amban (Manchu “minister,” the Qing Resident in Lhasa), who had authority over Qing affairs in Tibet. However, the nominal head of the Tibetan army was a Tibetan general, or *magpon* (*dماغ dpon*, “army leader”). Qing regulations stipulated that of the six *dahpon*, two would be stationed at Lhasa (capital of the Ü region), two at Shigatse (capital of the Tsang region), one at Gyantse, and one at Tingri near the Nepalese border. Of the three thousand Tibetan troop, one thousand were thus stationed in the Ü region, one thousand in the Tsang region, five hundred at Tingri and five hundred at Gyantse.³⁸ Late in the Qing period, it appears that there were also six independent battalions, each commanded by a *rupon*. Of these, three were deployed in Ü and three in Tsang.³⁹

Since the Tibetan troops formed a standing force, their main duty was to garrison and to practice military manoeuvres. They were, as noted, expected to train as per the standards of the Qing Green Standard troops, and the Amban was supposed to make an inspection of the Tibetan troops each year to ascertain whether their level of training fulfilled requirements. The Tibetan officer who was responsible for training was the *dahpon*. He did not receive a salary but was given an estate by the Dalai Lama so as to support him financially.⁴⁰

³² Chen, *Qing Court's Troop Deployment*; citing the collection of Qing laws named *Daqing huidian* (“Collected Statutes and Precedents of the Great Qing;” in the section dealing with the Lifanyuan, the Court of Colonial Affairs which administered the empire’s Inner Asian territories), from the period 1875-1908 but based on earlier documents. That this organisation remained in force, at least on platoon level and higher, as late as in January 1882 is confirmed by Das, *Journey to Lhasa*, 86.

³³ Sir Thomas F. Wade, “The Army of the Chinese Empire: Its Two Great Divisions, the Bannermen or National Guard, and the Green Standard or Provincial Troops; Their Organization, Locations, Pay, Condition, &c.,” *The Chinese Repository* (Canton) 20: 5, 6, 7 (May, June, and July 1851): 250-280, 300-340, 363-422, on 340.

³⁴ Das, *Journey to Lhasa*, 180.

³⁵ Ian Heath, *Armies of the Nineteenth Century: Asia I-Central Asia and the Himalayan Kingdoms* (Guernsey: Foundry Books, 1998), 164.

³⁶ See, e.g., *British Invasion*, 184.

³⁷ Melvyn C. Goldstein, *A History of Modern Tibet, 1913-1951: The Demise of the Lamaist State* (Berkeley: University of California Press, 1991), 66.

³⁸ Chen, *Qing Court's Troop Deployment*; citing the *Daqing huidian* (the section dealing with the Lifanyuan), from the period 1875-1908 but presumably based on earlier documents. That this deployment remained in force as late as in January 1882 is confirmed by Das, *Journey to Lhasa*, 178, 180. The full text of the *Daqing huidian*, as cited by Chen, describes the Tibetan army: “There are 3,000 Tibetan troops. One thousand will be stationed in the Ü region, one thousand in the Tsang region, 500 at Tingri and 500 at Gyantse. Fifty per cent of them will use matchlock muskets, thirty per cent use bows and arrows, and the remaining twenty per cent use swords. Soldiers shall have their hair shaved. Every 25 soldiers shall be under a *dingpon*, every five *dingpon* shall be under one *gyapon*, every two *gyapon* shall be under one *rupon*, and every two *rupon* under one *dahpon*.”

³⁹ Das, *Journey to Lhasa*, 178, 180.

⁴⁰ Chen, *Qing Court's Troop Deployment*.

Below the rank of *dahpon*, the Tibetan officers received monetary salaries. Each *rupon* received 36 taels of silver every year. A *gyapon* received 20 taels of silver per year, while a *dingpon* had a salary of 14.8 taels of silver annually. Funds for pay were the responsibility of the Kashag organ best known for being in charge of the accounts of the month-long Great Prayer Festival, or Monlam Chenmo (*smon lam chen mo*), held annually in Lhasa during the first month of the lunar year. In fact, most of the revenue of this organ was used on religious activities and on behalf of the Dalai and Panchen Lamas. Twice a year, the Tibetan government transferred the required funds to the Amban, who, as noted, until 1821 was the one who controlled the Tibetan forces. In addition to the funds from the Tibetan government, which accounted for only a small share of Tibet's military budget, further funds came from the proceeds of a number of estates that had been confiscated in times of revolt and in the form of limited payments from the Qing central government. The Tibetan government was also, presumably due to its chief role in funding, responsible for the manufacture of weapons. The soldiers received a food allowance but perhaps not, it seems, regular monetary wages. Although the Qing central government was not responsible for the daily expenses of the Tibetan troops, the Qing often rewarded the troops after wars and during inspection tours, manoeuvres, and so on, to stimulate the troops. Such rewards were also handed out to Qing troops elsewhere, and since they could form a very substantial part of a soldier's income, the Qing knew their value for morale. In 1789, that is, already before the creation of a standing Tibetan army, it was decided that all Tibetan officers and soldiers, including the Dam Mongols, would be given rewards once a year. The rewards could consist of brocade, cloth, tobacco, tea, and silver plates in addition to money.⁴¹

Regular Qing Troops in Tibet

There were of course also regular Qing troops in Tibet. When in January 1882 the Indian intelligence agent Sarat Chandra Das (1849-1917) had one of his Tibetan agents make a *dingpon* in Gyantse talkative through plying him with alcoholic drinks, the Tibetan officer mentioned that in addition to the 500 Tibetan soldiers stationed at Gyantse under the *dahpon* Tedingpa, there were also 50 Chinese soldiers under a Chinese officer.⁴² In addition, Das learnt, the troops at Gyantse and Shigatse were under the control of the Qing paymaster at Shigatse.⁴³ By 1901, at least, there were four paymaster's offices - and thus Qing military headquarters - for troops in Tibet: at Lhasa (for the Ü region), Shigatse (for the Tsang region), Lhari, and Jingxi. The Tibetan army was regarded by the Qing as being incorporated into the main Qing military system. Thus, the Tibetan troops in the Ü region were technically under the control of the Green Standards colonel of the Qing garrison at Lhasa (which makes sense since a *dahpon* was of 4th mandarin rank, that is, one level below the colonel's 3rd rank). Likewise, the Tibetan troops in the Tsang region and at Tingri and Gyantse were under the nominal authority of a Green Standards lieutenant colonel (who, being of 4th mandarin rank, technically may have been regarded as of the same rank as the Tibetans holding the rank of *dahpon*).⁴⁴

Levies and Noble Cavalry

In addition to the strictly military ranks, there were also a large number of officials best described as district magistrates, each holding the title of *dzongpon* (*rdzong dpon*; literally "castle leader"). They were entrusted with both civil and military powers in their domains. In military matters, they were subordinated to the *dahpon*. They had to show their proficiency in military matters at the annual inspection of troops made by the Amban and the *dahpon*. The magistrates received "blue or crystal buttons" to be worn on their official hats, which indicate that they had been awarded from 6th to 3rd mandarin rank.⁴⁵

The *dzongpon* had the authority, at least in theory and whether on behalf of the Qing or not, to raise the traditional Tibetan levy, which in earlier times constituted the bulk of any Tibetan army. Each family and each landholder was in theory required to provide an armed man with provisions for a month as well as another member of the family to carry the fighting man's provisions. In the case of the landholders, the number of fighting men they needed to raise depended on the size of their land, and each was to be provided with a servant to carry the fighting man's provisions.⁴⁶ Nobles, officials, and leading men in case of such calls for mobilisation in theory still had to provide quotas of cavalry (*rta dmag*), presumably mounted

⁴¹ Chen, *Qing Court's Troop Deployment*.

⁴² The American diplomat William Woodville Rockhill (1854-1914), who eventually edited the reports of Das for publication and had considerable personal experience from the region, believed this Chinese officer to have been a Green Standards captain (*qianzong*). Das, *Journey to Lhasa*, 86.

⁴³ Das, *Journey to Lhasa*, 86.

⁴⁴ Chen, *Qing Court's Troop Deployment*.

⁴⁵ Das, *Journey to Lhasa*, 176.

⁴⁶ One soldier was to be supplied for every *rkang* of land that he owned. The *rkang* was a standard Tibetan unit of land measurement, in this case presumably the *dmag rkang* or "army" *rkang*, that is, land originally granted with the obligation that the landholder provide and support a soldier. Das, *Journey to Lhasa*, 180; Goldstein, *History*, 66 n.3.

archers wearing chain-mail of the type that was introduced in the mid-seventeenth century. Levies were summoned for active service by the despatch through the villages of an arrow attached to a white cloth. Estimates from the nineteenth century indicate that Tibet in theory could muster about 60,000 men including several thousand horsemen.⁴⁷ Such large Tibetan forces were never raised, however. By 1728, before the plans for the already mentioned standing army of the mid-eighteenth century were conceived, one probably fairly typical if large Tibetan field army consisted of 3,000 cavalry and 9,000 infantry.⁴⁸

Arms and Equipment

The Imperial Ordinance for the More Effective Governing of Tibet stipulated that fifty per cent of the Tibetan regular soldiers would be matchlockmen, thirty per cent archers, and the remaining twenty per cent armed with swords. Observers noted that some men were also armed with long spears or slings.⁴⁹ Some weapons were manufactured in Tibet, but Fukang'an had noted that the Qing army in Tibet had a considerable surplus in the form of especially bows and arrows brought from China. He thus decided to allocate Qing surplus weapons to the Tibetan soldiers. Fukang'an also noted that there never had been any cannon in Tsang (perhaps a faulty conclusion, as there had been at least one cannon in Tibet in 1727; whether this had ever reached Tsang remains unknown⁵⁰), so he also allocated two of his thirteen cannon (used against the Gurkhas) to the Tibetan troops in Tsang. The remaining eleven cannon he stored in the Potala.⁵¹

The Qing army of Fukang'an had had to transport all lead shot and gunpowder from China, primarily Sichuan, since production facilities in Tibet were inadequate or non-existent. Fukang'an therefore proposed to establish the manufacture of gunpowder at Kongpo, where there were rich sulphur deposits and where some gunpowder for the use of the Potala apparently already had been produced. However, he expected that lead shot and fuse still would have to be transported from Sichuan.⁵²

The Introduction of Modern Weapons

In the late nineteenth century, an arsenal was established just west of Lhasa. At the time of the Younghusband expedition of 1904, there were two Muslim gunsmiths at the arsenal, who for the previous ten years had made good copies of Martini-Henry rifles with raw materials and some tools acquired from Calcutta.⁵³ In total, eight Indian Muslims with experience from a gun factory in Calcutta had gone to Lhasa. Two, perhaps three of them had died there, but not until they had established the manufacture of rifles in Lhasa, so that the Tibetans by 1904 could make rifles for themselves. According to Edmund Candler, the journalist attached to the Younghusband expedition, the arsenal manufactured copies of other British rifles as well, such as the Lee-Enfield and the older Snider.⁵⁴ By 1903, the British had acquired intelligence (from an ex-monk from Lhasa who served as a British secret agent) to the effect that no less than two thousand modern rifles had been manufactured at Lhasa: a thousand for the Lhasa garrison and five hundred each for the Phari and Shigatse garrisons. Even so, the rifles were reported to be of inferior construction and liable to burst, with even the ammunition being "of a very inferior kind."⁵⁵

In 1903-1904, a special concern among the British was the possibility that Russia had supplied modern weapons to Tibet. Two key reasons for the British invasion were indeed to find evidence of Russian weapons, and to forestall any Russian interests in Tibet. Waddell observed what he described as three "Russian-made rifles" in the escort of the *dahpon* Lhadrang at Guru.⁵⁶ After the subsequent battle at Chumik Shenko, at Guru, the despatch of the British military commander, Brigadier-General James Macdonald, listed the following weapons as seized on the field of battle, in which some five hundred regular Tibetan soldiers died (out of a force of perhaps nine hundred⁵⁷): "2 gingalls [jingals, that is, heavy matchlocks used in the role of light artillery] and a large number of matchlocks and swords, together with a few breechloaders, two of

⁴⁷ Heath, *Armies of the Nineteenth Century: Asia I*, 154.

⁴⁸ Petech, *China and Tibet*, 128.

⁴⁹ See, e.g., Das, *Journey to Lhasa*, 180.

⁵⁰ Petech, *China and Tibet*, 117-18.

⁵¹ Chen, *Qing Court's Troop Deployment*; citing Fukang'an's memorial to the throne dated the 11th day of the Twelfth Month of the 57th year of the Qianlong reign period, which corresponds to early 1793.

⁵² Chen, *Qing Court's Troop Deployment*; citing Fukang'an's memorial to the throne dated the 11th day of the Twelfth Month of the 57th year of the Qianlong reign period.

⁵³ Waddell, *Lhasa* (3rd edn 1906), 170, 427; cited in John Clarke, "A History of Ironworking in Tibet: Centers of Production, Styles, and Techniques," LaRocca, *Warriors*, 21-33, on 23.

⁵⁴ Candler, *Unveiling of Lhasa*, 103, 204.

⁵⁵ *British Invasion*, 122-3, 131, 135, 143, 144.

⁵⁶ Allen, *Duel in the Snows*, 105.

⁵⁷ Allen, *Duel in the Snows*, 127.

which were of Russian make.”⁵⁸ Waddell, after the battle, also reported many swords and matchlocks as well as “several rifles, mostly of Lhasa manufacture, but a few Russian.” The official figure for Russian rifles taken at Guru was eventually put at three.⁵⁹ In a later battle, at a place the British called Red Idol Gorge on the way to Gyantse, another handful of breechloaders “that could be described as Russian in origin” were seized.⁶⁰ In fact, not all would seem to have been Russian. On another occasion, among “some very good rifles” captured from the Tibetans, one was an American Winchester repeater, while a second was a Mauser, which was identified as Russian (despite the fact that to the best of my knowledge the Russians did not use Mausers at the time; perhaps the British had confused the two names Mauser and Mosin, the latter of which was a common Russian rifle at the time, known as the Mosin-Nagant).⁶¹ Candler, the journalist attached to the expedition, later summarised the situation: “During the whole campaign, we did not come across more than thirty Russian Government rifles, and these were weapons that must have drifted into Tibet from Mongolia, just as rifles of British pattern found their way over the Indian frontier into Lhasa.”⁶²

Regular Tibetan troops and Khampa mercenaries were by then armed in fundamentally the same way. In 1904, another journalist, Henry Newman, noted that although most Khampa mercenaries had matchlocks or rifles, some still used slings.⁶³

CONCLUSION: THE TIBETAN MILITARY IN THE NINETEENTH CENTURY

Since the Tibetan standing army was formed and trained by Qing officers, it was hardly surprising that it came to assume many characteristics of the regular Qing army. First, the Tibetan soldiers were being trained in the same way as the Chinese soldiers of the Qing army, the Green Standards. In addition to similarities in organisation, which may or may not have been incidental, this also meant that unlike in the past, the new Tibetan army was predominantly an infantry army, armed and equipped in the same manner as other Green Standards units. Gone was the former emphasis on irregular and very likely undisciplined noble cavalry, and gone was also obsolete body armour. Second, the Qing brought a new emphasis on artillery, both of the light variety in the form of jingals and of the heavy variety in the form of cannon. In 1904, these weapons, despite their age and obsolescence in the face of modern weaponry, on occasion even served as a deterrent to the British soldiers of the Younghusband expedition.⁶⁴ Third, the Qing attempted to make the Tibetan army a uniformed force of men, although in this they had only limited and temporary success. Fourth, the Qing made repeated attempts to ensure that the standing force of men was paid as soldiers, although it remains unclear whether the men in fact received regular wages or only the annual rewards, which still might be a substantial form of remuneration, from the Qing administration. Fifth, the Qing set up or at least improved upon a set of production facilities of weapons and gunpowder in Tibet, where earlier few such had existed.

The reform was not in vain, and for a few decades, it ensured a functioning Tibetan army. In one way or the other, the Manchu-trained Tibetan army lived through the war between Tibet and the Sikhs and Ladakhis (the Dogra War) of 1841-1842 and the war between Tibet and the Nepalese Gurkhas of 1855-1856. Yet, especially the latter war - as well as developments between the Qing empire and the Western powers including the incident in 1856 (the seizure of a British junk) that would cause the outbreak of the Arrow War - by 1857 made it abundantly clear that military reform again was urgently needed. To protect its southern borders, Tibet needed both a larger and a more modern army. Unfortunately for Tibet, the Tibetan leaders at the time, both clerical and secular, opposed the idea of military reform and army enlargement as being too costly in monetary terms. They pointed out that no reserves remained after the latest Gurkha invasion. Thus the Amban, a Manchu named Manqing (Lhasa Amban from 1857 to 1862), responded in a memorial to the throne on the 24th day of the 10th month of 1857 that he advised against further military reform.⁶⁵

Although the Qing rulers began attempts to reform the Qing military in their core territories, little happened in Tibet. A few modern rifles were acquired, but fundamentally, the Tibetan army continued to rely on the weapons technology, organisation, and tactics that had served the Manchus so well in the eighteenth century. Many Qing and, presumably, Tibetan soldiers by then knew that times had changed; however, Lhasa did not make funds available for further reform and the Qing court had little to spare for such a remote border territory as Tibet. The Qing had, after all, established the Tibetan army for the purpose of defending the southern borders against foreign aggression. To send a major Qing army from Sichuan or Qinghai into Tibet was both prohibitively costly and extremely time-consuming. It should thus have been clear to the Tibetans that they could not at all times expect immediate military aid, if needed. However, the

⁵⁸ *British Invasion*, 235.

⁵⁹ Allen, *Duel in the Snows*, 124.

⁶⁰ Allen, *Duel in the Snows*, 136.

⁶¹ Allen, *Duel in the Snows*, 242.

⁶² Candler, *Unveiling of Lhasa*, 221.

⁶³ Allen, *Duel in the Snows*, 190.

⁶⁴ See, e.g., Allen, *Duel in the Snows*, 185-6.

⁶⁵ Chen, *Qing Court's Troop Deployment*.

Tibetan rulers were reluctant to invest funds in the military to keep it up to date, as such funds would have had to be diverted from religious activities. In addition, it seems that in particular many clerical leaders also opposed, on principle, the establishment of a modern military force under secular command.

Even so, the final legacy of the Qing may have been the fact that as the nineteenth century progressed, the Tibetan army - despite the recurrent lack of funding - quietly adopted limited reforms along the same lines as the main Qing army went through at home, only slower. There were attempts to provide modern rifles to the soldiers, although in no way as many as would have been needed. The general recruitment of Khampa tribesmen from the Kham (*kham*s) region of eastern Tibet, a people known in Tibet as particularly warlike, into distinct units of auxiliary mercenaries was also part of a trend that characterised the evolution of the main Qing military - the not very positive but still make-do trend that made Qing commanders recruit more warlike men as mercenaries, formed in separate units, when the regular soldiers turned out to be too few and too complacent. The idea to recruit Khampa mercenaries appears at least in part to have originated with the Qing commanders.⁶⁶

But small improvements could not substitute for a thorough reform, and none took place. When the Tibetan army was called upon to confront the British invasion of Tibet in 1903-1904 (the Younghusband expedition), it was woefully inadequate. An eighteenth-century force could not expect to defeat an early twentieth-century aggressor unless under exceptional circumstances. It also did not help that Lhasa on more than one occasion issued orders that in effect hamstrung the Tibetan military commanders.⁶⁷

The negative Tibetan clerical view on the need for military expenditures continued after the fall of Qing from power in 1912. By then, the Qing had already embarked upon a thorough military modernisation programme. While this reform came too late to save the Qing, it proved sufficient to serve as a foundation for a modern Chinese military. However, renewed attempts to modernise the Tibetan military, first in 1913-1914 and then in the 1920s, were thwarted.⁶⁸ The end result is known to all; when the Manchu empire was only a memory, and Chinese troops invaded Tibet in 1950, the Tibetans did not stand a chance and independent Tibet was doomed.

The conclusion can only be that had the Tibetan leaders been more forthcoming with funding, there is no real reason why the Qing-created Tibetan army would not have been able to evolve into a modern military force, capable of ensuring Tibetan independence after the fall of the Qing empire. Tibet, after all, had geography and terrain on its side. The tools were there; the Tibetan government simply refused to make full use of them.

⁶⁶ Chen, *Qing Court's Troop Deployment*.

⁶⁷ See, e.g., *British Invasion*, 239; Allen, *Duel in the Snows*, 111.

⁶⁸ Goldstein, *History*, 66-7 (on the attempt in 1913-1914), 93-110, 135-7 (on the attempt in the 1920s).