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Defence and Offence

Federica Venturi, Alice Travers

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This volume is dedicated to the memory
of Dr. John Clarke (1954-2020)*

*<https://ladakhstudies.org/2020/11/13/john-clarke-1954-2020-scholar-of-ladakhi-and-tibetan-metalwork/>

Defence and Offence: Armour and Weapons in Tibetan Culture

edited by
Federica Venturi and Alice Travers

Armour and Weapons in Tibetan Culture An Introduction

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This special issue of *Annali di Ca' Foscari. Serie orientale* collects the proceedings of the workshop entitled “Defence and Offence: Armour and Weapons in Tibetan Culture”, organised in the framework of the ERC-funded project *The Tibetan Army of the Dalai Lamas, 1642-1959* (‘TibArmy’, grant agreement 677952, 2016-23), that took place in Paris on 29 November 2018. Dedicated to the theme of arms and armour in Tibetan culture, the workshop aimed to gather scholars from various disciplines (history, art history, philology, Mongol studies and arms and armour specialists) in an attempt to spur research and dialogue on the development and history of Tibetan weapons in this pivotal historical era. In fact, if one considers the military origins of the Ganden Phodrang, it is rather astonishing that the study of weapons and warfare has not been the object of more dedicated research. As it is well known, the establishment of this government was rendered possible by the victories of Mongol and Tibetan armies fighting in support of the Gélukpa. However, the majority of the textual sources at our disposal do not focus on the military operations and battles that led to the unification of most of Tibet under a sole government. As a consequence, to this day little is known about the mil-



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itary history of Tibet. This is compounded by the fact that the 'Roof of the World' remains a place celebrated for its spiritual life, and as a result of this, research on the Tibetan civilisation has traditionally revolved around its religious aspects.

Only in 2006, when the pioneering exhibition *Warriors of the Himalaya* was inaugurated at the Metropolitan Museum of Art, the subject of weapons, armours and warfare in Tibet was openly and directly broached. The exhibition and the publication of its important catalogue,¹ which included four articles examining questions connected to arms and armour from different viewpoints,² represent a significant turning point and a source of inspiration for the 'TibArmy' Project in general³ and in particular for the present volume's endeavour to add new avenues of research on Tibetan weapons.

In other fields, the pursuit of military history, including research on strategies and tactics, logistics, and technological advances, has proven to be an extremely useful tool that allows to look at society, government, and state through a completely different set of lenses than the traditional ones of politics, economy and religion. Thus, to provide only the most obvious example here, a now old but still much debated theory, that of the 'military revolution', which for more than half a century has stimulated a reassessment of premodern and early modern European history, is still completely untested in the field of Tibetan studies. First introduced by Michael Roberts in 1955,⁴ and later developed and calibrated by his pupil Geoffrey Parker in 1988,⁵ this idea posits that military innovation in Europe in the fifteenth century, namely the development of mobile field artillery, immensely facilitated the storming of citadels and castles, and thus led to the

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1 La Rocca, *Warriors of the Himalayas*.

2 A general introduction on Tibetan arms and armour by Donald La Rocca; a short history of ironworking in Tibet, by the late John Clarke (whose untimely passing prevented his collaboration to this volume); a discussion of armour and weapons in the iconography of Tibetan Buddhist deities by Amy Heller; and an article on *gonkhang* temples by Lozang Jamspal.

3 So far, the 'TibArmy' Project has published two other edited volumes on the history of the military in Tibet during this period: Travers, Venturi, *Buddhism and the Military* and FitzHerbert, Travers, *Asian Influences*; another edited collection, on the wars of the Ganden Phodrang, is in preparation.

4 Roberts, "The Military Revolution. 1560-1660".

5 Parker, *The Military Revolution*. Other earlier, but still influential, theories on the effect of gunpowder on societies are briefly illustrated in Needham, *Science and Civilisation in China*, vol. V, part 7, 16-18.

evolution of fortifications, which became stronger in order to resist these assaults. In response to this, armies sent to lay a siege substantially increased in size, thus requiring the development of sophisticated and orderly structure both in the battlefield and within the administrations of the governments at war. These had to become better organised in order to raise revenue for and arrange all the logistical facets concerning equipment, provisions, soldiers' pay, military schools, barracks and on-the-move lodging, training, the manufacture or purchase of illustrated drill manuals, and so on. Such efforts contributed to the centralisation of state power, eventually leading to the demise of the administrations less successful in adapting to the new order, and the invigoration of states that innovated efficaciously. Ultimately, the countries with complex but efficient centralised administrations and in possession of superior military technology and organisation ended up dominating large parts of the rest of the world, and creating ever-larger global empires. The idea of the military revolution, then, has since become one of the possible explanations for the marked ascent of Western power over other civilisations.

This brief summary does not imply the project's full support of this theory; indeed, the idea of the military revolution has been critiqued, revised and nuanced in multiple ways during the last thirty years, and continues to be debated.⁶ However, recapping its original formulation here serves to illustrate the different ramifications that an analysis of the impact of war on society may bring, and more precisely of the possible historical stakes implied in a study of weapons in a given society. Indeed, while this theory seems at first sight wholly unrelated to the Tibetan case, its model, comprising research on the technological improvements in weapons, and the necessarily related studies of logistics, reconstruction of battles, perusal of state records pertaining to military expenses and taxation, etc., has already been applied to other societies, including India, Japan, Korea, the Ottoman empire and the Islamic states of the Maghreb,⁷ as well as to Asia as a whole.⁸ The point, then, is that at the moment the field of Tibetan studies still lacks an assessment of the impact of new weapon technologies on society, and this realisation has been among

6 Among the many publications devoted to this topic one may mention: Black, *A Military Revolution?*; Downing, *The Military Revolution and Political Change*; Jacob, Visoni-Alonzo, *The Military Revolution in Early Modern Europe*; Parrott, *The Business of War*; Rogers, *The Military Revolution Debate*.

7 See Ágoston, "Firearms and Military Adaptation"; Andrade, *The Gunpowder Age*; Andrade, Kang, Cooper, "A Korean Military Revolution?"; Börekçi, "A Contribution to the Military Revolution Debate"; Cook, *The Hundred Years War for Morocco*; Eaton, Wagoner, "Warfare on the Deccan Plateau 1450-1600"; Khan, *Gunpowder and Firearms*; Stavros, "Military Revolution in Early Modern Japan".

8 Lorge, *The Asian Military Revolution*.

the major reasons behind ‘TibArmy’'s determination to organise this workshop and publish its proceedings.

We thus decided to start from the first link of the chain, i.e. the study of weapons itself, partly because the whole idea of the military revolution proceeds from technological improvements in weaponry, and partly because we could ground our research on the above-mentioned prior scholarship by Donald La Rocca. It was also decided that this focus on Tibetan weapons needed to be chronologically extended to cover the historical periods prior to the Ganden Phodrang, to include all types of weapons even outside the scope of the military usage (and include hunting or private use), and, to extend to Tibetan areas beyond the territories of the Ganden Phodrang government. Therefore, the main questions that oriented the participants' research were: which weapons did the Tibetan use, where did they come from, when were they used, and in which circumstances?

Studying weapons in Tibetan culture presents several limits and difficult-to-solve puzzles. The first challenge is to establish a clear chronology of the existence and diffusion of weapons in Tibet. To determine the time when important, transformational technological advances occurred in Tibet would allow one to reflect on the model established by Geoffrey Parker, but this remains a somewhat hazardous venture, mainly because of enduring terminological ambiguities in Tibetan sources.⁹ Just to give an example, if one tries to find out when firearms of the type that spurred the military revolution in Europe, the matchlock musket, appeared in Tibet, one faces a singular problem: the generic word for it is *me mda'*, literally ‘fire-arrow’, but, this word does not change as time, and technological advances, progress.

The word *me mda'* is thus first found in texts much earlier than the introduction of firearms in Tibet such as, for instance, the *gsung 'bum* of Mar pa Chos kyi blo gros (1002/1012-1097/1100), the *gsung 'bum* of the five founding patriarchs of the Sa skya order (eleventh to thirteenth century) and the *gsung 'bum* of the third Karma pa Rang 'byung rdo rje (1284-1339). In these cases, the term may simply denote a true ‘fire-arrow’, that is, something similar to the Chinese-style fire lance,¹⁰ an early ancestor of the gun that appeared in China already in the tenth or eleventh century, and that although it did use

9 The central problem of terminology in the study of weapons in particular, and of new technology in general was already highlighted in Needham, which talked of “terminological confusion”: “when the thing fundamentally changed, while the name did not” (Needham, *Science and Civilisation in China*, vol. V, part 7, 11-12). In the case of Tibet, the question was addressed by La Rocca, who authored the first “Tibetan-English Glossary of Arms and Armor Terms” (La Rocca, *Warriors of the Himalayas*, 267-87).

10 An illustration of a fire lance can be seen in Needham, *Science and Civilisation in China*, vol. V, part 7, 238.

gunpowder, had a barrel made of bamboo or paper, and spewed out sparks or flames rather than projectiles.¹¹ In literature dating from the seventeenth century onward it is ascertained that the term *me mda'* may indicate muzzle-loading muskets, and more particularly a matchlock (as will be seen in this issue, it seems quite unlikely that flintlocks ever made their way to Tibet).¹² In the following centuries, and especially in the nineteenth and twentieth centuries, the same term may conceivably denote also more advanced imported breech-loading firearms and rifles. We also know for sure, as it is testified by numerous photographs, that matchlock technology remained commonly in use in Tibet well into the twentieth century, so that even in this period the term *me mda'* may still mean 'matchlock'.

However, the meanings (fire arrow or firearms) of the occurrences found in the intermediate period, i.e. the fifteenth to seventeenth century, are not always clear since the question of the precise date of introduction of firearms into Tibet remains a thorny one.

At present, as it is shown in Tashi Tsering Josayma's contribution to this volume, the earliest documented references to firearms in Tibet may be ascribed to the first half of the seventeenth century, with 1618-19 being the earliest date confirmed through historical sources. The episode in question, narrated in the biography of the first Panchen Lama, regards the clashes between the ruler of Tsang (Sde pa Gtsang pa) and the Mongols; on one of these occasions "a rain of arrows (*nyag phran*) and *me mda'* fell" (*me mda' dang nyag phran gyi char 'bab*).¹³ While some may doubt that in this case *me mda'* actually refers to firearms, and would argue that it may be interpreted as fire-arrows, not many years later, in 1634, we have definite certainty of the utilisation of gunpowder in a war context. During the second war between the ruler of Tsang and Bhutan, a stash of gunpowder explosives stored by the Bhutanese in a fortress at Sinmodoka (Srin mo dho kha) exploded unexpectedly, apparently killing all the Tibetans who were besieging it.¹⁴ It goes without saying that if the Tibetans were not yet aware of the power of firearms, they certainly became so at this point. To continue with our examples, one may refer to another source discussing the events of the seventeenth century, the *La dwags rgyal rabs*, which mentions that the skills with a matchlock of King Senge Namgyal (r. 1616-42) were excellent.¹⁵ Interestingly, the term found in the *La dwags rgyal rabs* and

11 See Andrade, *The Gunpowder Age*, 75.

12 See Travers' contribution in this issue.

13 See Tashi Tsering Josayma in this issue. A similar passage from the same source, but referring to 1621, is also identified in Ardussi, "Bhutan before the British", 262 fn. 79.

14 See Aris, *Bhutan*, 219; Ardussi, "Bhutan before the British", 220.

15 Francke, *Antiquities of Indian Tibet*, vol. 2, 39, ll. 20-1

translated by Francke as “matchlock” is *glog*,¹⁶ although already in the *Mi dbang rtogs brjod* the common term for a firearm is *me’i ’khrul ’khor*. While there is an obvious temporal gap between the two texts – the chronicles of Ladakh are ascribed to the seventeenth century,¹⁷ while the *Mi dbang rtogs brjod* was completed in 1733 – one might also surmise that the term *glog*, meaning literally ‘lightning’, with its focus on the sudden flash of light produced by the weapon, better describes an initial focus on the wondrous qualities of the matchlock, while the designation *me’i ’phrul ’khor* shows a certain understanding of the mechanism and automation that rendered possible the functioning of the firearm.

However that may be, by the time the *Mi dbang rtogs brjod* was composed, certain technological advances had probably made their way into Tibet. Moreover, some of these may have been introduced by the Zunghars during the occupation of Lhasa between 1717 and 1720. It is well known, in fact, that in 1716 a Zunghar (Kalmyk) raid against a Russian convoy of prisoners of war being transported to Siberia captured, among others, Johan Gustaf Renat,¹⁸ an expert Swedish artillery lieutenant. Renat remained a captive of the Zunghars for seventeen years and soon became respected for his knowledge of military matters. We know this from several sources. One is his own petition to the Swedish government to receive a pension, that he penned after his return to Sweden in 1734. Here he stated that he made guns and mortars for the Kalmyks, organised their artillery, and taught two hundred of them the use of those arms, “all out of love for his country”.¹⁹ In addition, the funerary eulogy written for his wife Brigitta Scherzenfeldt, another Swede who had been imprisoned by the Kalmyks and whom he married while in captivity, mentions that, on their return to Sweden, Renat had been arrested in Moscow because

the Russians had taken up great hate for him inasmuch as he had helped their enemy the Kalmyks by some artillery and other things, such as the usual European military sciences and drills, tolerably put in place to defend themselves against a forthcoming enemy assault.²⁰

16 Note, however, that the term *me mda’* appears in the *La dwags rgyal rabs* in a list of offerings donated to Stag tshang ras pa; see Tashi Tsering Josayma’s contribution in this issue.

17 Petech, *The Kingdom of Ladakh*, 1.

18 See Petech, *China and Tibet in the Early 18th Century*, 39.

19 See Baddeley, *Russia, Mongolia, China*, vol. 1, clxxxv-clxxxvi. He also mentioned that he “made a campaign with the Kalmuks against the Chinese” (vol. 1, clxxxvi), but he dates this to 1733, which seems unlikely, since he departed from the Khan’s court on 22 March of that year (see Jarring, “Brigitta Scherzenfeldt”, 117).

20 English translation of the original Swedish eulogy, as reproduced in Jarring, “Brigitta Scherzenfeldt”, 117. We are grateful to Dr. Thomas L. Markey for his translation

Even more importantly, we learn from the statement of a Major Ugrimoff, who had also been prisoner of the Zunghars, that Renat manufactured for them “fourteen 4-pounder cannons; five small cannons and twenty 10-pounder mortars”.²¹ These certainly contributed to introduce the latest western technologies in Central Asia, and notice of these new war machines may have well arrived to Lhasa during the Zunghar occupation.²²

As the reader will understand by reading this volume, when seeking to establish such a chronology of firearms, the historian of Tibet copes with a scarcity of traditional historical sources (in particular a limited number of archival sources available on military history) and thus needs to make use of whatever other historical and literary material is at his/her disposal. The critical analysis and interpretation of the meaning of what is found and not found in these sources is often arduous and leaves room for much uncertainty. The *Treatise on Worldly Traditions* (*Jig rten lugs kyi bstan bcos las dpyad don gsal ba'i sgron me zhes grags pa bzhugs so*), dated 1524 by his colophon, is a good illustration of some sources' limits for earlier times. It is a volume on craftsmanship composed by Jamyang Tashi Namgyel ('Jam dbyangs bkra shis rnam rgyal). It includes sections on 1) the craft of swords (*ral gri*) and the assessment of their qualities, which often depended on the choice of materials and the technique of fabrication, such as the tempering of the iron, particular forging technique, and so on; 2) armour (*khrab*); and 3) helmets (*rmog*). Two other parts, on saddles and stirrups, concern corollary equipment.

It is noticeable that the treatise itself does not include a section on firearms. While this might be interpreted to signify that they were completely unknown in Tibet, this seems quite unlikely, since it is widely believed that the Mongols, under whose rule Tibet had been from the mid-thirteenth to the mid-fourteenth century, were responsible for the diffusion, from the mid-thirteenth century onwards, of the earliest types of gunpowder weapons from East Asia all the way

of this important text.

21 See Baddeley, *Russia, Mongolia and China*, vol. 1, clxxx.

22 However, Petech doubts that these innovations could have been already operational at the time of the Zunghar conquest (Petech, *China and Tibet in the Early 18th Century*, 41). About this point, see the contribution by Travers in this issue, as well as Shim, “The Zunghar Conquest”.

to Europe.²³ While there are still a few critics of this theory,²⁴ it is certain that the Mongols used projectile-propelling firearms, as the oldest unquestionably datable gun has been recovered among the ruins of Xanadu (Shangdu), Qubilai Khan's military headquarters from 1260 onward. It is known as the 'Xanadu gun', and its date, inscribed on it, corresponds to the year 1298.

Another weapon that cannot be found in this treatise allows one to confirm that the author's particular viewpoint alone (and not the historical state of the development of weapons in Tibet at that time) can explain its exclusion from this work. Bows and arrows, likely the most widespread, one might say ubiquitous, weapons used in Tibet, are also completely absent, and nobody would surmise that their absence indicates that they were unknown - on the contrary, they have represented the traditional war and hunting equipment of all Tibetans since at least imperial times.

However, since the *Treatise on Worldly Traditions* is mainly a manual of connoisseurship, its focus on craftsmanship (including chapters on the making of porcelain, cloth, tea, leather, and musical instruments such as cymbals and bells), explains why it would not include sections on either bows and arrows or firearms. In fact, the former were mostly produced at home, with readily available material, and the skills to make them were passed on in the family from one generation to the next. As a consequence, there was no need to turn to a skilled artisan. On the contrary, in order to acquire a sword, it was necessary to turn to the services of an ironsmith, who possessed the required technical knowledge to temper the iron and craft it in the proper way.

Concerning firearms, instead, we could hypothesise that gun-making was not contemplated in the *Treatise* because at this point in time - again, the date is 1524 - there were either very few or no autochthonous Tibetan craftsmen with the knowledge necessary to produce a functioning gun. Hence, Jamyang Tashi Namgyel had no need to include advice on the craftsmanship of guns. Rather, it may be surmised that the absence of a section on firearms in this manual indicates that the guns existing in Tibet at this time were more than likely all imported from nearby countries, such as China, India and Persia.

23 See for example Andrade, *The Gunpowder Age*, and Haw, "The Mongol Empire"; both propose that the Mongol empire largely employed gunpowder throughout all its vast territories. Needham, *Science and Civilisation in China*, vol. V, part 7, 3 simply proposes that from about the year 1300, China was the origin of "the transmission of the bombard, gun and cannon to the rest of the world". Related questions concerning the introduction of advanced firearms in Asia from the West and the military revolution in Asia are discussed in Di Cosmo, "Did Guns Matter?", 121-66.

24 See May, *The Mongol Conquests*, and Raphael, "Mongol Siege Warfare".

This being said, this volume also shows that the historians of Tibet still have at their disposal a wealth of visual and textual (historiographical, biographical and autobiographical) sources that can be mined in search of weapons' mentions and descriptions, as well as a number of archives on the Tibetan manufacturing and import of weapons for the twentieth century period (see Travers in this issue), and a very significant amount of material evidence of the Tibetan weapon culture, stored in museums and private collections.²⁵ These sources allow to build a new understanding of the diversity of Tibetan weapons and of their development in history and to focus, whenever possible, on the questions of nomenclature, dating, and provenance of new technology.

In an effort to disentangle these issues, in order to even begin to approach the wider investigation of the 'military revolution', which would open significant avenues of enquiry that have so far been neglected in the world of Tibetan studies, we have collected in this issue five path-breaking studies, organically structured in two sections preceded by a preface. The brief preface ("Some Reflections on the Question of Military Innovation in Tibet"), by a specialist of Mongolian history, Johan Elverskog of Southern Methodist University (Dallas, Texas) – whom we thank for having accepted to take on the delicate task of providing an external point of view –, presents his reflections on the possible reasons behind what he sees as a historically long-developing military weakness of the Tibetans, resulting in their ultimate mid-twentieth century defeat at the hand of People's Republic of China's army. He contextualises the Tibetan situation within the larger Asian context and what Andrade has called "Great Military Divergence", when Europe came to dominate Asia in the course of the nineteenth century. He then proposes as a hypothesis that the Tibetan divergence from military innovation that happened at some point during the Ganden Phodrang period might find its first roots in an even earlier period, after the fall of the Mongol empire (1350-1550), when the Tibetan army would have embarked on a period of stagnation, leaving little space to innovation and showing slight or no interest in financial investment on weapons, new technology, etc. His final considerations on possible reasons for the continuation of this phenomenon in the next centuries may be provocative to some, and are in certain regards contradicted by the research found in this issue, but are certainly worth raising to stimulate the debate and hopefully foster further historical research on why, how and when exactly the Tibetans started to accumulate a technological setback in weapons development, one that proved to be difficult to recover in the first half of the twentieth century.

²⁵ See La Rocca, *Warriors of the Himalayas*, and his article in this issue.

Following this preface, the initial section of this volume focuses on three general questions that we think are instrumental to approach this topic: the state of the art in connoisseurship of Tibetan arms and armour, the understanding of the terminology and its evolution, and the identification of the historical sources. In the first article, entitled “Armour and Weapons in Tibet from Yongle to Young-husband. Learning from Object-Driven Research”, Donald La Rocca, relying on his longstanding expertise as Curator of the Arms and Armor Department of the Metropolitan Museum of Art (New York), illustrates the state of the art in research on Tibetan arms and armour from the fifteenth to the twentieth century. In a concise and clearly structured piece, he sums the extent of our knowledge in this field, one that he himself pioneered back in 1999. His article lucidly illustrates the various types of armour (for men and horses), helmets, shields, swords, spears, firearms and archery equipment, detailing their material, fabrication techniques, and cultural influences from other neighbouring (or not so neighbouring) countries. In addition, it highlights some of the most recent discoveries, including an extremely rare defence for the neck and shoulders, the use of which is evident after comparison with an early fifteenth century Chinese scroll.

Complemented by a number of beautiful illustrations, Donald La Rocca's article is also propaedeutic reading for all other articles, but especially for the one entitled “Arms and Armour in Ancient and Medieval Tibetan Literature. A Lexicographical Approach” by Petra Maurer (Ludwig-Maximilians Universität, Munich), who examines in great detail the historical development of terms and expressions for arms and armour through a lexicographical approach by studying sources ranging from the eighth to the nineteenth century. Assimilable to the article by Tashi Tsering Josayma for its breadth of scope, the research presented here is supported by Maurer's profound knowledge of the Tibetan language after her longstanding work for the *Wörterbuch der Tibetischen Schriftsprache*. In brief, here she examines for the first time all the terms relating to arms and armour collected in the above-mentioned *Wörterbuch*, and analyses their meanings in different textual contexts and time periods in order to reconstruct as much as possible how the language relating to weapons and warfare changed, what different connotations could be applied to these words including outside the military domain, and whether their values evolved, expanded or contracted. Her work in collecting and collating all this material, as well as analysing it, will prove extremely useful not only for scholars of philology, but also for historians and scholars of religious studies, as it transpires that many of the words used for weapons also often had metaphorical uses, especially in religious contexts.

The contribution entitled “*Khra ring bog gi bshad pa* and Other Material on the Matchlock” by Tashi Tsering Josayma of the Amnye

Machen Institute (Dharamsala, Himachal Pradesh), is a veritable bibliographic tour de force. By gathering in one place data scattered in almost eighty different primary sources, ranging from the eleventh to the twentieth century, this article is in itself a small encyclopaedia on the topic of matchlock in Tibet. Moreover, it renders accessible to the wider public a mine of information that, when explored in further depth and detail, will certainly lead to new discoveries and greater understanding. Among its many immediate contributions are an attempt at finding out when the matchlock was introduced in Tibet, a discussion of the different regional names for the word ‘matchlock’, including (where possible) their etymologies, and the reproduction, for the first time, of a hand-drawn sketch of a matchlock indicating the names for all its parts, as well as other sketches related to the Tibetan matchlock. Very importantly, the paper provides translations of eight songs (of the *khram glu* genre) on the *bog* (matchlock) by nomads, of seven praises to the matchlock (*bog gi bshad pa*) from Eastern and Northern Tibet, as well as two ritual texts of “summons of the war god onto the matchlock” (*me mdar dgra lha bkod pa*). There are no doubts that this article will continue to stimulate further research for many years to come.

In contrast with the more general overview of the first part, which is not tied to a specific chronology or time-frame, the second half of this volume addresses more historically situated concerns, in this case two specific analyses of the Ganden Phodrang government armaments toward the beginning and the end of the Ganden Phodrang period (1642-1959), echoing one of the ideas in the volume’s preface in the sense that they clearly illustrate the sheer interest of the Tibetan state in its armament, at least in its founding and final phases. In an article entitled “The Dorjéling Armoury in the Potala According to the Fifth Dalai Lama’s *gsung ‘bum*”, focused on the second half of the seventeenth century, Federica Venturi (CRCAO, Paris) translates and analyses a poetic preamble written by the Fifth Dalai Lama on the occasion of the inauguration of the armoury located at the Potala, the palace, fortress and administrative centre where he resided. The text reveals that although the Fifth Dalai Lama seems to have had only a superficial knowledge of weapons, he was well aware of the importance of creating a safe storehouse for arms and armour. In addition, the text provides us with a partial list of the military equipment stored there, crucially giving us a picture of the type of arms and armour that were used at the time. Unfortunately, though, the preamble gives no idea as to the quantities of material stored.

Shifting the focus to the end of the period under examination, the last article of this collection entitled “From Matchlock to Machine guns. The Modernisation of the Tibetan Army’s Firearms between Local Production and Import (1895-1950)” by Alice Travers (CRCAO, Paris) demonstrates the intensity of the efforts displayed by

the Ganden Phodrang government to catch up on firearms from 1895 onwards, and particularly showing that Tibet engaged in an arms-building enterprise just a few decades behind Qing China. The paper examines the supply of arms for the Ganden Phodrang army in the first half of the twentieth century and how the Tibetan government progressively succeeded in drastically modernising its firepower over a strikingly short period of time. In a detailed study, she relates the halting efforts of the government from the end of the nineteenth century until 1950, in part attempting to gather foreign expertise in order to establish autonomous factories for the production of modern firearms, and in part seeking agreements with other countries in order to purchase and import arms and munitions that were likely to be up-to-date and efficient, while also ensuring the transmission of knowledge around these new weapons across the troops. This article's reconstruction of the back and forth of the Tibetan government and its allies and of the endeavours that were often beset by political and technological challenges, provides a more nuanced view of the Ganden Phodrang's approach toward its military preparation.

Before we conclude, it should be mentioned here that all of the contributors to this volume are not personally expert in the use of weapons, and thus many technical points, especially concerning firearms, but also on armour, shields, etc. could not be understood without expert help, which was very generously provided all along the research and editing process by Donald La Rocca, Curator emeritus of the Arms and Armor Department at the Metropolitan Museum of Art, New York, as well as by a number of other specialists, in particular Jonathan Ferguson, curator of modern small arms at the Royal Armouries Museum, Leeds, in addition to numerous readers who gave input on our papers (we cannot name them all here but their help is acknowledged in each paper), and the anonymous reviewers, whom we all wish to thank heartily. For their contribution in translation work, we would also like to thank Thomas L. Markey, retired, University of Michigan, who translated from Swedish the important account of Brigitta Scherzenfeldt's life, and Sonam Tsering Ngulphu who translated various textual sources related to the Tibetan matchlock. Last but not least, the editors would like to thank those people who employed much care and patience in helping us with the more technical aspects of the publication. In Paris, Estelle Car took care of all the logistics concerning the reproduction of a number of photographs and images in this issue and Tenpa Nyima helped to proof-read the Tibetan. In Venice, Mariateresa Sala of Edizioni Ca' Foscari answered a myriad of questions on the details of the publishing process. Finally, we would like to thank Antonio Rigopoulos for his enthusiastic acceptance of this project within the authoritative fold of *Annali di Ca' Foscari. Serie orientale*.

We believe that the study of arms and armour can provide a meas-

ure of the significant impact of warfare on Tibetan society. Despite the fact that, at the end of this volume's reading, more questions will undoubtedly have been raised than answered, we hope that with this publication we can begin to bring to light data and analysis that will allow us to look at Tibet from a different, broader, viewpoint.

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Some Reflections on the Question of Military Innovation in Tibet A Preface

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When the British invaded Tibet in 1904 they were met by a Tibetan army that they described as being obsolete. The perceived backwardness of the Tibetans' weapons and military tactics no doubt played a role in fostering the Western image of Tibet as a Shangri-La outside of time.¹ At the same time it also needs to be recognised that this was not the first time that Western military superiority had defeated an Asian army. Rather, throughout the nineteenth century – on account of what historian Tonio Andrade has called the “Great Military Divergence” – it was at this time that Europeans came to dominate the globe.

Thus, on one level what happened in Tibet was not unique. The same thing had happened in China during the Opium Wars, in the East India Company's conquest of Mughal India, in Africa as the con-

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1 For a critical reevaluation of the Western representation of the Tibetan military see Harris, *The Museum on the Roof of the World*, 129-35.



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continent was carved up by European powers, and across North America as white settler colonialism moved West. Yet, at the same time, the case of Tibet was distinctive – especially in the context of the early twentieth century – on account of the military disparity between the forces of Sir Francis Younghusband and those of the Ganden Phodrang government being so stark in 1904. The Tibetans went into the field against the Maxim gun with matchlock rifles, swords, and magical amulets, a fact that confirmed for the invaders that Tibet was clearly disconnected from conventional historical developments.

This, at least in terms of military developments, was certainly true; however, an important question related to this fact is: why was this the case? What were the historical contingencies that had made Tibet not keep pace with military technological developments? And more to the point, when did this divergence actually begin and why? Since, as is well known, once the Tibetans did realise how far behind – or disconnected – they were from modern developments and its consequences (i.e. conquest), as early as in 1888 (the first confrontation against the British military and technological superiority at Lungtu) and then again in 1904, the Ganden Phodrang government tried to rectify the situation. The Thirteenth Dalai Lama in particular was an avid supporter of modernising Tibet's military. But, as everyone also knows, it was in the end too late. Thus, the question arises: why and when did the Tibetan army devolve into obsolescence?

It is important to begin by noting that the Tibetans had once been a formidable military force. During the Empire period (seventh to ninth centuries) they conquered not only the capital of the powerful Tang dynasty in China (although briefly, in 763), but also came to dominate Inner Asia and the lucrative Silk Road trade (between 670 and 692, and at various points during the eighth century). Moreover, in the subsequent centuries after the so-called 'dark ages' – from the Tibetan renaissance to the Mongol Yuan period and up through sixteenth century – it appears as if Tibetans were not only almost constantly at war, but also keeping up with the military innovations then taking place across eastern Eurasia. This suggestion is not only reflected in the historical record, but also in what may seem an unlikely source; namely, the so-called connoisseurship manuals that Donald La Rocca has skilfully used reevaluating the history of Tibetan weapons and armour.²

In particular, he has ably translated the section on swords of the most famous of these manuals: Paljor Zangpo's (Dpal 'byor bzang po) fifteenth century *The Chinese-Tibetan Compendium. A Mirror Illuminating the World and Bringing Great Joy to the Learned* (*Rgya bod yig*

² La Rocca, *Warriors of the Himalayas*, 146-18, 253-63.

tshang mkhas pa dga' byed chen mo 'dzam gling gsal ba'i me long),³ which describes the five types of prized swords as follows:⁴

May there be merit in these words. It will now be shown the way in which there gradually appeared amazing and miraculous new developments, such as porcelain, tea, and swords, which did not exist in Tibet prior to the establishment of the rule of the Tibetan kings. In this way, swords first appeared and spread in Tibet from the time of Drigum Tsenpo (Gri gum btsan po). Praise and homage to Acala, the unshakable wrathful guardian king, who unlocks the door to emanations of pure reality by subduing with his sword of wisdom the enemy represented by wrongful views, and by binding with his lasso of mindfulness the thief that is agitation. Up to now in Tibet, nothing has been written about the classification and use of swords. Having made a careful analysis of the pleasant discourses of the experts, I have composed this extensive written explanation concerning swords.

Therefore, the types of swords are classified as follows: *zhang ma*, *sog po* and *hu phed* are three; with *dgu zi* and '*ja' ral* making five [...].

The *zhang ma* type is the sword that flourished at the time of the Emperor Taizong (r. 626-649). It was forged in a district of the emperor's uncle by a woman in the form of a wrathful female goddess who was the uncle's consort. With that sword, anything that existed could be cut [...].

The *sog po* type was the sword of the border peoples, which flourished in the time of the Uighur king named Thub rgyal (possibly T'ung Yabghu Qaghan, r. 619-630). In that limitless land of the Uighurs, the sword was forged by an elderly smith. That sword was made from [...] a piece of meteoric iron the size of a frog. Therefore, Uighur iron was regarded for its sharpness [...].

The *hu phed* type is the sword of the Mongols, which became widespread from the time of Chinggis Khan (ca. 1162-1227) onward. It was first forged in a place called Hu in Mongolia by one called Phed. This sword can cut through six wild yak horns bundled together and is, therefore, known as sharper than horn. The place and the maker's name were closely connected, so this particular type was called *hu phed* [...].

³ Although the *Rgya bod yig tshang* of 1434 is a general history of Tibet and China, it does also contain chapters on the connoisseurship of various commodities (see Martin 1997, 68, no. 115; Tshering, "A Short Introductory Note on Porcelain Cups of Tibet").

⁴ The following translation is based on La Rocca, "An Early Tibetan Text", 98-9, with minor corrections, such as rendering *sog po* as 'Uighur' here instead of 'Mongol' in La Rocca, and *hor* as 'Mongols' here instead of 'Horpa Mongols' in La Rocca.

The type of sword one finds in Tibet is known as *dgu zi*, which flourished from the time of King Drigum Tsenpo. It was forged by the nine Squint Eye brothers [...] in a wild region of a place called Zi 'du. The eldest brother provided the sword that was used to cut the sky rope. The swords of the eight younger brothers also gave evidence of great sharpness [...].

As for the 'ja' type, this is the sword of the southern regions of Mon, which flourished in the time of Namkha Didze. It was forged by a smith called Mitok Thalgo in the dense forests of Lhodrak in the region of 'Ja'. This sword could cut through nine fresh tree branches. Therefore, the 'ja' *ral* is famous for its sharpness against wooden staves [...].

These are the oral teachings comparing the defining characteristic of each type. For the *zhang ma* type it is the *zhang them* (series of circles or 'steps' in the blade pattern?). The sign of the *sog po* type is the *go chog* (peak-like mark in the blade pattern). The sign of the *hu phed* is the *hu rdzi* pattern [fn. 42: this seems to indicate a dagged pattern on the blade, possibly resembling eyelashes]. The sign of the *dgu zi* is a blade pattern like the Milky Way constellation. The sign of the 'ja' *ral* is that the iron glistens [...].

For the most part (the surface of the blades of) *zhang ma* swords glisten indirectly, as if they had been rubbed with sheep-colored fat. Most *sog po* swords have sides that are even from the base of the blade to the tip, like the delicate needles on a pine tree. In the *hu phed* sword, one usually sees the *rdzi* pattern, which resembles a black snake pursued by a Garuda [...]. The *dgu zi* is usually gray and heavy, like a gray [...] willow branch covered with moisture. The 'ja' *ral* usually is strong and resplendent, like a tigress running over a plain [...].

An invariable feature of the *zhang ma* type is that at the place measuring three finger widths from the point, whether or not the blade has been tempered, there is a design like the round impressions made by fingernails. [...] An invariable feature of the *sog po* type is that if one measures down from the point three finger widths there is a pinnacle formed by the male and female iron. An invariable feature of the *hu phed* type [...] is a consistent border of a design like tiger's teeth, starting at a measure of five and half finger widths from the tip. An invariable feature of the *dgu zi* type is that the color of the tempered iron in the center of the blade looks like the Milky Way. Invariable features of the 'ja' *ral* type are that the blade is thin and very wide, and the point is broad.

Of course, as La Rocca has made clear, it is quite difficult to make sense of what precisely all these swords and their qualities actually refer to since these connoisseurship manuals were written, compiled and redacted over the centuries.

Yet, it does seem as if in the fifteenth century Tibetan elites recognised five basic types of swords, each with a specific origin:

1. *zhang ma* - China
2. *sog po* - Inner Asia
3. *hu phed* - Mongolia
4. *dgu zi* - Tibet
5. *'ja' ral* - South Asia

As such it seems possible to suggest that when these manuals were being prepared in the post-Mongol period, the authors drew upon the combined historical knowledge of the empire period, when Tibet was engaged with the surrounding peoples found in these manuals - China, Inner Asia, South Asia- and then added to it the latest global empire of which the Tibetans were a part: the Mongols. These connoisseurship manuals therefore reflect an awareness of the military innovations - or realities - of the preceding centuries. Or to put it another way, as reflected in these connoisseurship manuals, Tibetans were up through the fifteenth and sixteenth centuries both aware and appreciative of new weapons. But then the tradition of such connoisseurship manuals seems to fade, and one might wonder whether the Tibetan interest in military innovation did not too.

In trying to explain this break Robert A.F. Thurman has argued that the reason for this turn away from militarism and its weapons was Buddhism. To wit, on account of the dharma's advocacy of non-killing the Tibetans simply turned away from their earlier warlike nature and abandoned their interest in military innovation. In particular, Thurman claimed that the Fifth Dalai Lama had made Tibet a "unilaterally disarmed society" on account of Buddhist principles.⁵ Of course, it was precisely such utopian images of Tibet as a Shangri-La that were then beginning to be critiqued by numerous scholars.⁶ Donald S. Lopez Jr., for example, noted in his *Prisoners of Shangri-La. Tibetan Buddhism and the West*: "Nor was Tibet, in George Bataille's phrase an 'unarmed society', Tibet did not renounce armed conflict when it converted to Buddhism in the eighth century, or in the eleventh century, or under the fifth Dalai Lama".⁷ All of this is no doubt true; however, at some point the Tibetan interest in keeping up militarily with its neighbours did indeed wane.

⁵ Thurman, *Essential Tibetan Buddhism*, 38-40. For a critique of this historiographical supposition see Sperling, "'Orientalism' and Aspects of Violence in the Tibetan Tradition", 328 fn. 7.

⁶ The number of works that engaged with this project are now too numerous to list here; however, some of the standard works in this scholarly reevaluation are Bishop, *The Myth of Shangri-La*; Lopez, *Curators of the Buddha*; Schell, *Virtual Tibet*; and Dodin, R  ther, *Imagining Tibet*.

⁷ Lopez, *Prisoners of Shangri-La*, 8-9.

In thinking about the Tibetan separation from global military innovation – which thus seems to have happened at some point during the reign of the Ganden Phodrang government (1642-1959) and in any case before the end of the nineteenth century – one may very well wonder whether Thurman was actually correct in asserting that there was something intrinsic to Buddhism that led Tibetans to not engage in the technological rat-race of military innovation. Indeed, the same argument had in fact been made in China for centuries; namely, Ming court officials had long argued that promoting the dharma among the Mongols would weaken their military impulses, thereby allowing the Ming to spend less time and money on defending its northern border.⁸ But, as the continuing warfare between the Chinese and Mongols – including after they had become Buddhist – makes clear that the adoption of Buddhism did not halt violence or military innovation among the Mongols (or the Chinese for that matter). Rather, as with any state – be it Catholic, Buddhist, communist, democratic or what have you – the maintenance and upkeep of military technology is crucial to its own survival. And, in this regard, it is also important to keep in mind that during the reign of the Ganden Phodrang government Tibet was virtually at war all the time:

Tibetan armies fought against Ladakh in 1681, against Dzungar Mongols in 1720, in numerous incursions into Bhutan during the eighteenth century, against invading Nepali forces from 1788 to 1792 and again in 1854, against Dogra forces invading Ladakh from Kashmir in 1842, and against the British in 1904.⁹

Thus it was not as if the Tibetans did not need to keep up with military innovations. Quite the opposite, in order to maintain their way of life they would have benefited from a technological military edge.

In fact, it is precisely for this reason that military technology is such a crucial component of world history. It quite simply explains the rise and fall of civilisations. And as such it has recently become part of the age-old question about the rise of the West; namely, what was it that gave Europeans the edge in the early modern period that allowed them to conquer the world? Of course, the answers given to this question are many and varied, from Protestantism,¹⁰ to New World silver,¹¹ to easier access to natural resources.¹² Yet, as Tonio Andrade has argued in his recent book, *The Gunpowder Age. China,*

⁸ Elverskog, *The Jewel Translucent Sutra*.

⁹ Lopez, *Prisoners of Shangri-La*, 9.

¹⁰ Weber, *The Protestant Ethic and the Spirit of Capitalism*.

¹¹ Lane, *Potosí. The Silver City that Changed the World*.

¹² Pomeranz, *The Great Divergence*.

Military Innovation, and the Rise of the West in World History, it was also related to military technology, especially the development of more sophisticated weapons in the nineteenth century, since it is obviously much easier to win a war if you are using a machine gun as opposed to a bow and arrow. As a consequence we are left with the question raised above: why did the Tibetans, who had earlier seemingly kept abreast of military innovations eventually disengage from broader developments in Asia and the world?

In trying to answer this question it is important to highlight the long running issue of the nature of Tibetan society and its relations with the larger Eurasian world, which, as with much in the field of Tibetan Studies, has gone through something of a sea change over the last generation of scholarship. Thus, rather than being imagined as a remote and isolated kingdom on the roof of the world, the more recent scholarly consensus – echoing transnational, inter-Asian and world historiographical trends – has it that Tibet has long been intertwined with the economic and political trends that have shaped Asian history.¹³ Thus, if that is indeed the case, then when and why did Tibet become wholly divorced from military developments in both Asia and the world?

As stated above this divergence took place during the reign of the Ganden Phodrang government. And as such we need to think not only about the nature of the Dalai Lama's government that led it in this direction, but also the broader military historical context in which these developments occurred. To that end it is therefore interesting to note that the two-century period after the fall of the Mongol empire (1350-1550) was one of general technological stagnation as the Mongol age of 'globalisation' came to an end.¹⁴ This fact is reflected in the Tibetan connoisseurship manuals from this period of time: there simply was nothing 'new' to add to the preestablished five types of swords of the earlier imperial periods. But then, as Andrade shows in his global history of military technology, innovations started up again in the seventeenth and eighteenth centuries. And as he argues, there was a general parity between the East and the West at this time; however, in the late eighteenth century European military innovation went into overdrive and Asia stagnated, resulting in such legendarily lopsided military battles like those of the Opium Wars in the mid-nineteenth century, the Tibetan-British war of 1888, and then British invasion of Tibet in 1904.

In trying to explain why this military divergence occurred, Andrade points to what he calls the "Great Qing Peace". To wit, after the

¹³ See, for example, Pollock, *Forms of Knowledge in Early Modern South Asia*; Akasoy, Burnett, Yoeli-Tlalim, *Islam and Tibet*; Tuttle, *Mapping the Modern in Tibet*; Gyatso, *Being Human in a Buddhist World*; Diemberger, Ehrhard, Kornicki, *Tibetan Printing*.

¹⁴ Andrade, *The Gunpowder Age*.

massive expansion of the Manchu state into Mongolia, Central Asia, and Tibet in the eighteenth century, the Qing court basically came to rest on its laurels and largely gave up on the endless struggle of gaining and keeping a military technological advantage. While Europeans, on the other hand, as a result of their endless 'national wars', kept innovating with great success. This in turn enabled the Euro-American empires to subsequently conquer the world.

Even though this all seems readily evident, a further question is where does Tibet fit into this global history of military technology? As we have seen, by the beginning of the twentieth century the Tibetans were militarily woefully out of date. Yet, as such they were clearly not unique, the Tibetan experience was largely the same as that of the rest of Asia. But unlike other Asian polities which tried to rectify the situation by modernising their militaries in the nineteenth century - including the Qing dynasty of which Tibet was ostensibly a part - the Ganden Phodrang government did not do so until the end of the nineteenth century. I would like to suggest that there are two reasons for why this was the case.

The first was quite simply the nature of the Ganden Phodrang government itself, which was in my opinion not a typically conceived state, at least in its inception. Rather, it progressed from a religious institution - like the Vatican - whose mission was to propagate itself through monasteries, incarnations, and systemised knowledge networks within the power structures of other states (be that the Tümed, Oirad, Khalkha, Dzungar, or Manchu).¹⁵ And in expanding this Gélukpa empire the Ganden Phodrang government was remarkably successful.¹⁶ More to the point, it did not require a military to do so. Rather, just as the Western Christian Church lacked 'army and cannon' and depended on temporal powers to insure its power,¹⁷ so too did the Ganden Phodrang. Thus, whenever they did need military support to shore up their political standing in central Tibet, they could most of the time rely on these other states to do so for them (e.g. Khoshud, Khalkha, Dzungar, Manchu). In short, unlike states that needed a military - and military innovation - to stay in power, the Ganden Phodrang did not for a significant period of time. It could readily allow its own military to devolve into obsolescence, which is clearly what happened in the course of the nineteenth century.

Yet again, this did not happen in a vacuum. Rather, a second factor that needs to be considered is the relationship between the Ganden Phodrang government and the Qing dynasty, the nature of which is still being debated. Regardless of the actual nature of this relation-

¹⁵ King, *Ocean of Milk, Ocean of Blood*.

¹⁶ Sullivan, *Building a Religious Empire*.

¹⁷ Heather, *The Restoration of Rome*, 408.

ship – for example, Tibet was never made into a province like Xinjiang – what cannot be disputed is that central Tibet never became a vital node in a global empire as was the case in the Mongol period. Rather, central Tibet became a marginal frontier zone of far less importance than even Kham (Khams) or Amdo (A mdo).¹⁸ And this reality was further accelerated in the nineteenth century as the Qing became consumed by a range of destabilising events (from Euro-American imperialism to internal rebellions of all sorts), whereby central Tibet was no longer relevant to the Qing court and it was thus allowed to virtually go off on its own.¹⁹ As a result, in many ways central Tibet – under the religious rule of the Ganden Phodrang – had essentially become the hermit kingdom of lost wisdom divorced from modernity at the turn of the twentieth century.

The collapse of Tibet's military capabilities can therefore be seen as yet another example of the great military divergence that defined the nineteenth century. But on account of the nature of the Ganden Phodrang government itself, and its relations with the Qing dynasty, the devolution of the Tibetan army did have a distinctive trajectory. One that sadly would have disastrous consequences in the new age of nation-states.

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¹⁸ Mosca, *From Frontier Policy to Foreign Policy*.

¹⁹ Oidtmann, *Forging the Golden Urn*.

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Armour and Weapons in Tibet from Yongle to Younghusband Learning from Object-Driven Research

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Abstract This paper presents an overview of the origins and development of research into various types of arms and armour used in Tibet from approximately the fifteenth century to the early twentieth century. Incorporated into this are a brief survey of well recognised examples and a review of the wide multiplicity of rare and less familiar forms, including helmets, armour for men and horses, swords, and firearms, many of which have only come to light over the past twenty-five years.

Keywords Armour. Weapon. Helmet. Lamellar armour. Horse armour. Archery equipment. Leather armour. Matchlock musket. Bow. Bow case. Quiver. Sword. Spear. Spearhead. Shaffron. Horseback archery. Wax seals.

Summary 1 Introduction. – 2 Western Knowledge of Arms and Armour from Tibet. Late Nineteenth to Mid-twentieth Century. – 3 Armour from Tibet. – 3.1 Lamellar Armour (*byang bu'i khrab*) and Mail (*a lung gi khrab*). – 3.2 Helmets (*rmog*). – 3.3 Cavalry Armour and Equipment from the Seventeenth Century Onward. – 3.4 Leather Armour (*bse khrab*). – 3.5 Horse Armour (*rta go*). – 4 Swords (*ral gri*). – 5 Spears and Spearheads (*mdung dang mdung rtse*). – 6 Archery Equipment (*'phong spyad*). – 7 Shields (*phub*). – 8 Firearms (*me mda'*). – 9 Equestrian Equipment (*rta chas*). – 10 Marks and Inscriptions. – 11 Terminology and Textual Sources. – 12 Examples of Important Recent Findings. – 13 A Word on Fakes. – 14 Conclusion.



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This paper is dedicated to my father, Anthony A. La Rocca (1927-2021).

1 Introduction

The intent of this paper is not to present a detailed discussion of the many and often surprising types of armour and weapons from Tibet or the various source materials that have been instrumental in an effort to understand and explain them. Rather, it is intended as an overview of what has been learned from approximately twenty-five years of study devoted to this fascinating and often misunderstood area of Tibetan culture. The first attempts to define the parameters of this subject as a field of study were summarised in a paper given in London in 1999.¹ The main body of research that developed from that initial outline can be found in the 2006 exhibition catalogue, *Warriors of the Himalayas. Rediscovering the Arms and Armor of Tibet*, and in three subsequent articles, one published in 2008 and two in 2014.²

The collection of Tibetan and Himalayan arms and armour at the Metropolitan Museum of Art in New York comprises about 250 objects. At its core is a group of approximately seventy-five pieces that entered the museum in 1935 as part of the bequest of George C. Stone.³ Beginning early in the nineties and lasting until about 2010 an unprecedented number of rare and important examples of arms and armour from Tibet appeared on the art market, some at auction but the majority offered by dealers based in the UK, Nepal, and the US. It was during this relatively short but fruitful time that the Met's collection expanded to nearly its present size and scope.

In 1995, the Department of Arms and Armor acquired its first significant Tibetan piece since the Stone bequest sixty years earlier, beginning an unforeseen period of growth in this area of the collection. The item in question was an extremely rare and early example of a straight sword (*ral gri*), dating from the fourteenth to sixteenth century, the ironwork of its hilt incorporating iconography and decoration closely related to Tibetan ritual objects of the late Yuan to early Ming eras [fig. 1]. The significance of this sword, and its impor-

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1 La Rocca, "An Approach to the Study", 113-32.

2 La Rocca, *Warriors of the Himalayas*; "Recent Acquisitions"; "Recent acquisitions. Part 2"; "An Early Tibetan Text". A complete PDF of La Rocca, *Warriors of the Himalayas* can be downloaded from www.metmuseum.org/art/metpublications.

3 For a brief biography of Stone and his career as a collector of non-European arms and armour, see La Rocca, "Introduction".

tance as an acquisition for the museum, were clearly due to two factors. First was the result of the museum having missed the opportunity to acquire the fabulous 'Ming Sword', subsequently purchased by the Royal Armouries, Leeds, in 1990 or 1991.⁴ Second was the fact that in 1995 the Tibetan armour, weapons, and related material in the department's collection were being reviewed comprehensively for the first time in preparation for a small exhibition and accompanying publication, both called *The Gods of War. Sacred Imagery and the Decoration of Arms and Armor*.⁵

Presenting a carefully selected mix of sixty-five objects, *The Gods of War* surveyed the principal ways in which iconography found on armour and weapons reflected the belief systems of several major religions. The areas and religious traditions represented in the exhibition included: Hindu India; Hindu Indonesia; Buddhism and Taoism in China and Korea; Buddhism in Tibet; Buddhism and Shintō in Japan; Christianity; Islam; and Sikhism. Researching such rich and varied topics was as challenging as it was rewarding. Given the small size and limited scope of the project, it was possible to source the necessary literature, or gain enough scholarly input, to adequately explain and contextualise the varied forms of religious iconography encountered on the objects. For nearly all of the history and typologies of arms and armour, there were likewise in-depth studies on each of the different areas and it was only a matter of locating the published sources or a researcher adequately familiar with the material. This proved to be true for everything except the arms and armour from Tibet. Surprisingly, there were only a few published articles or studies, and no scholar at the time who was focusing on it as a research topic.

The limited amount of existing literature, the lack of even a reliable glossary or typology, combined with the steady trickle of intriguing and sometimes completely unfamiliar Himalayan armour, weapons, and equestrian equipment appearing in the marketplace, provided the inspiration to study these objects more carefully and consistently from about 1995 onward. Over time, the pursuit of this interesting and relatively unexplored avenue of research resulted in the eventual acquisition of approximately 175 pieces for the Depart-

⁴ In 1990 or 1991 the 'Ming Sword' was in the Met on offer to the Department of Asian Art, which declined to make the purchase. It was shown briefly to the Department of Arms and Armor, a short time after which, at the recommendation of Stuart Pyhrr, the sword was offered to the Royal Armouries and acquired by that institution, where it remains the crown jewel of their Tibetan collection. For this sword see La Rocca, *Warriors of the Himalayas*, 148-50.

⁵ The exhibition was drawn entirely from examples in the department's collection and was installed at the Metropolitan Museum of Art from 10 December 1996 until 5 April 1998.

ment of Arms and Armor, which, when combined with the Tibetan objects from the Stone bequest, yielded what is arguably the most comprehensive collection of Tibetan and Himalayan arms and armour in the world.

2 Western Knowledge of Arms and Armour from Tibet. Late Nineteenth to Mid-twentieth Century

Prior to the reappearance of a relatively large amount of Tibetan arms and armour on the international art market in the eighties and nineties, alluded to above, and the fresh research it sparked, the little that was known of the subject was derived from a handful of sources. These included: in terms of objects, examples that had been removed from Tibet as a result of the Younghusband Expedition (1903-04), most of which are housed in museums in the UK; comments and particularly photographs published in books about the expedition, especially books by participants, such as L.A. Waddell (1854-1938); later publication of photographs taken in the thirties and forties by key visitors to Lhasa, particularly images of historical arms and armour used during various parts of the annual Great Prayer Festival (*smon lam chen mo*), principally by Sir Hugh Richardson (1905-2000) during his diplomatic postings to Lhasa from 1936 to 1940, 1944 and 1946 to 1950, and by Brooke Dolan (1908-1945) and Ilya Tolstoy (1903-1970) in 1942;⁶ an often overlooked but primary study by W.W. Rockhill (1854-1914) published in 1895; a detailed examination of the history of lamellar armour, including some Tibetan examples, by Swedish archaeologist, Bengt Thordeman (1893-1990) printed in 1939-40; and a useful but more general survey of Tibetan armour by the British arms scholar and curator, H. Russell Robinson (1920-1978) published in 1967.⁷

3 Armour from Tibet

In terms of modern weaponry, the British army in 1903 was among the best equipped in the world. Given the extent of the British Empire at that time, many of its experienced officers and troops would have served in regions where they had seen, perhaps fought against, lo-

⁶ See, for instance, Harris, Shakya, *Seeing Lhasa*; Richardson, *Ceremonies of the Lhasa Year* and Tung, *A Portrait of Lost Tibet*. At the time of research for the 2006 exhibition and catalogue, such rich resources as the photographic archives of the Pitt Rivers Museum and the British Library were not yet readily available online, as they are now.

⁷ Rockhill, "Notes on the Ethnology"; Thordeman, *Wisby*, and Robinson, *Oriental Armour*. For further discussions of these sources see the index and bibliography in La Rocca, *Warriors of the Himalayas*.

cal forces outfitted with less sophisticated, outdated arms and equipment. Even with this experience, there was general surprise among the officers of the Younghusband Expedition at the antiquated state of the armour and weapons they encountered in Tibet, which were described by more than one member of the expedition as “medieval”. This may explain, at least in part, why so many examples of armour and weapons were acquired by members of the expedition and brought to Great Britain.

Body armour became generally obsolete in Europe during the course of the seventeenth century, which made encountering lamellar [fig. 2] and mail armour in Tibet a matter of particular fascination for the British members of the Younghusband Expedition. Although there is almost no evidence to suggest that armour was used by Tibetans in the actual fighting that occurred during the 1903-04 incursion, many examples were found among the stores of various fortress armories and as votive objects in temples, shrines, and monasteries.⁸

3.1 Lamellar Armour (*byang bu'i khrab*) and Mail (*a lung gi khrab*)

Lamellar armour is made up of a series of small iron or steel plates, or lamellae (*byang bu*), about the size of one's finger, rounded at the top and flat at the bottom edge. Each plate is pierced by a series of holes (or *mig*, 'eyes' in Tibetan), between eight and thirteen (but most typically nine), which allow the plates to be joined together by an intricate system of leather laces, forming a cohesive and strong garment [fig. 3]. An ancient form of defence, lamellar armour was used in various forms in China, throughout the Eurasian Steppes, in ancient Egypt, the ancient Near East, the Roman Empire, and Western Europe over a period of nearly 2,000 years. It differs from more commonly known scale armour in that the structure of lamellar armour is formed entirely by the plates and leather lacings, whereas in scale armour the scales are invariably stitched or otherwise attached to an underlying foundation material, such as leather or textile. The

⁸ Waddell's comments (quoted in La Rocca, *Warriors of the Himalayas*, 3-4) at the time of the expedition state that at least some armour was still being worn, very occasionally, by the Tibetans in combat settings, including iron helmets, lamellar armour, mail, and horse armour. However, Waddell's veracity has been seriously questioned by more recent scholarship, on which see Travers in this issue. Extensive accounts of the armed engagements that took place during the Younghusband expedition can be found in Ottley, *With Mounted Infantry*. Brevet-Major Ottley, an active participant in much of the fighting, includes dozens of detailed references to Tibetan firearms, both traditional matchlocks and modern small arms, artillery, and swords, and how these weapons were used, but does not include a single mention of armour in connection with Tibetan combatants.

Mongols certainly wore lamellar armour much like that from Tibet, and the suggestion has been made that the latter is, in fact, all Mongol in origin. However, since all surviving examples of this type have been found in Tibet, and none in Mongolia, it seems reasonable to conclude that these armours are Tibetan.⁹ The period of actual use, in warfare, of lamellar armour in Tibet probably spans the era from the Tibetan Empire in the seventh century through the sixteenth or seventeenth century, after which mail may have supplanted it as a more common form of body armour.

Mail (*a lung gi khrab*), often called ‘chain mail’, was known in Tibet possibly from as early as the Yarlung dynasty. However, unlike lamellar armour, all of the extant examples of mail from Tibet appear to date from the seventeenth to nineteenth centuries and were probably imported from Nepal, India, or Turkestan (see [fig. 8]).¹⁰

3.2 Helmets (*rmog*)

The helmets from Tibet exhibit greater variety and include more previously unknown or unrecorded types than any other category of objects in this study. Most familiar is a form of helmet with a bowl comprising eight plates topped by a central plume finial and, when complete, fitted with a pendant lamellar neck defence and sometimes cheek pieces as well [fig. 4]. Such helmets were worn in conjunction with the type of lamellar armour discussed above. Like the armour, they are made of pieces that are joined by leather laces.¹¹ The eight plates are curved like an arch and slightly convex, with pairs of lacing holes on the edges. As is typical with this type of helmet, four outer plates, with cusped borders, overlap four inner plates, with smooth borders. At the top of the helmet bowl, the tips of all eight plates are joined by laces at the base of the plume finial. Less frequently encountered, and probably more complex and therefore more expensive to make, is a variant in which the bowl comprises sixteen rather than eight plates [fig. 5]. This particular example is one of the few that retains a circlet of died yak hair, as sometimes seen on helmets worn during the Great Prayer Fes-

⁹ For a detailed discussion of this question see La Rocca, *Warriors of the Himalayas*, especially 51-4.

¹⁰ Regarding mail armour used in Tibet see La Rocca, *Warriors of the Himalayas*, 126-7. For an overview of the use of historical Tibetan arms and armour of various types, into the twentieth century, as part of ceremonies held annually during the month-long Great Prayer Festival, see La Rocca, *Warriors of the Himalayas*, 2-8, and Karsten, “A Note on *ya sor*”.

¹¹ On some examples that were repurposed or retrofitted for later uses, the plates are riveted together, but the lacing holes remain, indicating the original assembly method. See, for example, a helmet in The Met, accession no. 36.25.86.

tival, or Monlam Chenmo (*smon lam chen mo*).¹² Close inspection of some eight-plate and sixteen-plate helmets reveals inscribed characters, usually on the foot or base of the plume finial, indicating a military wing or division (*ru*) together with a number, most likely an inventory number for the particular helmet [fig. 6].

Beyond these traditional helmets, the amazing variety of other helmet types found in Tibet presents palpable evidence of extensive cultural interactions, indicating the military presence of or distinct influence by the Mongols, China in the late Yuan to the Qing dynasty, and different peoples from Central and West Asia.¹³ One particularly extraordinary example, both in terms of rarity and unexpected cultural disparity, is a Central Asian helmet, reportedly found in Lhasa's Barkhor market, which bears an Arabic inscription invoking the name of Sultan Mahmud Jani Beg Khan, apparently referencing Jalal al-Din Jani Beg ibn Ozbeg, Mongol ruler of the Blue and Golden Hordes from 1342 to 1357 [fig. 7].¹⁴

3.3 Cavalry Armour and Equipment from the Seventeenth Century Onward

Also familiar from twentieth century photographs of the Great Prayer Festival is a remarkably consistent configuration of cavalry equipment that seems to have been codified in the seventeenth century, during the time of the Fifth Dalai Lama (1617-1682). The armour usually comprises a helmet, mail shirt, four round plates worn over the torso (known as a set of four mirrors), and an armoured belt. The arms and accessories include a matchlock musket with a bandolier holding powder and shot (i.e. gunpowder and bullets), bow and arrows held in a bow case and quiver suspended from a waist belt, and a spear [fig. 8].¹⁵ The horses for this type of cavalry were not armoured.

Other than a few notable exceptions seen in period photographs, the helmets are Bhutanese, but fitted with textile nape and ear flaps, the latter invariably fixed in an upright position, that are quite unlike the textile fittings for this same type of helmet when it is used in Bhutan. This suggests that the Bhutanese helmets, with textile fittings specific to this use in Tibet, were an early example of what could be considered regulation equipment.

¹² For example, La Rocca, *Warriors of the Himalayas*, fig. 2, and Tung, *A Portrait of Lost Tibet*, pls 99-101.

¹³ For discussions of the various types and their possible cultural influences see La Rocca, *Warriors of the Himalayas*, catalogue nos. 9-23.

¹⁴ La Rocca, "Recent Acquisitions", 27-9; Alexander, *Islamic Arms and Armor*, 64-5.

¹⁵ La Rocca, *Warriors of the Himalayas*, 6, 7, 126-37.

The sets of four mirrors (*me long bzhi*) worn by most of the cavalrymen are simply made, plain and unadorned steel disks, lined with leather or cloth and joined by narrow leather straps. However, complete sets in good condition and retaining their original straps are rare today. They are interesting for the wax seals frequently found on the interior lining of the plates, probably identifying the noble house, monastery, or fortress to which the equipment once belonged [fig. 9]. Unfortunately, as of yet no one seems able to identify these seals or those found on several other types of Tibetan arms and armour.¹⁶ The typical *me long bzhi* worn by Tibetan cavalry should not be confused with the similar but purely ritualistic or ceremonial ‘heart mirrors’ (*thugs gsal me long*) worn by oracles, which often have a seed syllable in the centre. The two forms, however, are regularly merged in the armour often seen in depictions of wrathful or guardian deities. This not to say that all military *me long bzhi* are undecorated; there are several extant examples with damascened gold, engraved, and other decoration, probably made for officers or soldiers from noble families.¹⁷

Completing the body armour of these cavalrymen is a form of waist defence or armoured belt that seems to be uniquely Tibetan and may have been created specifically for use with this type of cavalry ensemble.¹⁸ The belt is made up of a series of narrow rectangular overlapping steel lames or slats riveted to underlying horizontal bands of leather, and sometimes fully lined with leather. While many are very simple, others are well-made, and gracefully shaped and proportioned.

The matchlock muskets, archery equipment, and spears that complete the cavalry ensemble will be discussed below in the appropriate sections devoted to weapons.

3.4 Leather Armour (*bse khrab*)

Several previously unknown forms of hardened leather armour and related objects have emerged from Tibet in recent decades. They are often beautifully decorated in styles that indicate either Tibetan or Mongolian origins and include distinctive armour for men and horses, bow cases, quivers, and occasionally saddles, dating from the fourteenth century to possibly as late as the seventeenth century [fig. 10]. The striking decorative technique simulates the appearance of lacquer, but is not true lacquer, which is derived from a tree sap, not native to Tibet and often referred to by its Japanese name,

¹⁶ For examples of these unidentified seals see La Rocca, *Warriors of the Himalayas*, catalogue nos. 1, 3, 9, 32, 44-6, and 96.

¹⁷ La Rocca, *Warriors of the Himalayas*, catalogue nos. 41-4.

¹⁸ La Rocca, *Warriors of the Himalayas*, catalogue no. 45.

urushi, and is found in lacquerware in China, Japan, and other parts of Southeast Asia. Instead, the substance used in Tibet to simulate lacquer consists of layers of shellac, natural pigments, gold leaf and a glaze of tung oil applied over a leather substrate.¹⁹

3.5 Horse Armour (*rta go*)

The presence of horse armour in Tibet, obsolete for approximately 300 years in Europe, was also a matter of great fascination for members of the Younghusband Expedition.²⁰ As with lamellar armour for men, the military applications of horse armour in Tibet were nearly or completely nonexistent by 1903, but a few complete and several partial examples were preserved, some in the households of noble families, as heirlooms, for use on ceremonial occasions, and as votive objects in shrines.²¹ One of the most complete sets was presented to the British diplomat Sir Charles Bell (1870-1945) by the Thirteenth Dalai Lama in Darjeeling in 1910.²² Horse armour made of iron lamellae was known in China by about the Han dynasty (206 BC-220 AD) and is documented in Central Asia, the Middle East, and among the Mongols in the succeeding 1,000 years. Tibetan horse armour generally comprises panels of leather (often decorated in the same way as the leather armour described above) combined with rows of iron lamellae, or other iron plates, to create a unique type that appears to have existed nowhere else. The basic components include a head defence (possibly *rta gdong gi lcags*), or shaffron [fig. 11], a pair of long wing-shaped panels that rest on either side of the horse's neck, a piece over the front of the chest, panels at either side below the saddle, a single narrow panel along the top of the rump, a pair of large panels on either side of the hindquarters, and sometimes a separate panel beneath the tail. Most, but not all examples, have some degree of decoration, and on armours of higher quality all of the pieces have matching and very elaborate decoration, particularly on the leather components, more rarely on the iron elements, in addition to trim made of textile and dyed yak hair. Using samples taken from the integral leather laces by which the parts of most panels are as-

¹⁹ For a detailed discussion of leather armour in Tibet and the simulated lacquer technique see La Rocca, *Warriors of the Himalayas*, especially 96-7 and 116-25.

²⁰ On Tibetan horse armour see La Rocca, *Warriors of the Himalayas*, 96-115.

²¹ See Waddell's comment, referenced above in § 3.1 and quoted in La Rocca, *Warriors of the Himalayas*, 3-4, that "the high officers sometimes clothe their horse in armour, a new set of which was captured". Regarding the strong doubts cast on the reliability of Waddell's comments, however, see Travers in this issue. Ottley makes no mention of Tibetan horse armour (Ottley, *With Mounted Infantry*).

²² La Rocca, *Warriors of the Himalayas*, 96-7 and catalogue no. 26.

sembled, it has been possible to reliably date a handful of examples using the carbon-14 method, yielding date ranges from the fifteenth to the seventeenth century.²³

In a rare variant, apparently localised in Western Tibet, the horse armour consists of a contiguous fabric base reinforced with iron plates and comprising two neck pieces and two panels to cover a horse's front shoulders [fig. 12]. In addition to the present example, only two others appear to be known: one found in the ruins of the armoury in Tsaparang, capital of the former kingdom of Guge; and another preserved as a votive object in the *mgon khang* of Phyang Monastery, Ladakh.²⁴

4 Swords (*ral gri*)

Many swords seen or acquired by foreign visitors to Tibet in the nineteenth and twentieth centuries were relatively plain, hard-used workaday items, frequently showing evidence of repairs or alterations from generations of service. Others, however, are complex and beautiful objects, often incorporating expensive materials and exhibiting fine craftsmanship [fig. 13].²⁵ Swords, their names, production, and use, are deeply intertwined with early Tibetan history. Five canonical sword types (more specifically, blade types), each with multiple subtypes, are categorised and described in a handful of Tibetan texts, dating from the fourteenth century onward, devoted to arts and crafts (*bzo rig*) and the appraisal and connoisseurship of objects (*brtag thabs*), which have been discussed in some depth elsewhere.²⁶ The five types that repeat in all of the texts, with some variations in spelling, are: *zhang ma*, *sog po*, *hu phed*, *dgu zi*, and 'ja' *ral*. Each has an origin story tied to a legendary event or a mythological or historical figure, the earliest starting with the reign of the semi-legendary King Drigum Tsenpo (Gri gum btsan po). However, with a few possible exceptions, it is difficult to demonstrate any direct correlation between the types repeatedly named in these texts and existing Tibetan swords.²⁷

The blades of most traditional Tibetan swords, those made before the early twentieth century, have a 'hairpin' pattern clearly visible

23 For a table of carbon-14 test results compiled by Edward A. Hunter, see La Rocca, *Warriors of the Himalayas*, 288.

24 See La Rocca, "Recent Acquisitions" for a full description and references.

25 The following discussion is confined to swords made as actual weapons. For swords or sword hilts that are intended solely or primarily as ritual weapons see, for instance, Metropolitan Museum of Art accession nos. 2016.702, 2017.161, and 1985.397.

26 La Rocca, *Warriors of the Himalayas*, 146-8, 252-64; and La Rocca, "An Early Tibetan Text".

27 For examples of extant swords that possibly correspond to some of the canonical types see La Rocca, "An Early Tibetan Text", particularly 95-7.

on both sides. In general, this looks like a series of closely set, slightly wavy, alternating dark and light lines that meet in a point near the tip of the blade. It is the result of a forging process known as pattern welding, in which rods of higher carbon and lower carbon iron or steel are folded over and hammered together. In traditional Tibetan texts generally the harder, whiter steel is called “male iron” (*pho lcags*) and the more ductile, darker steel is “female iron” (*mo lcags*).²⁸ Other less frequently encountered patterns include a series of wavy lines resembling tiger stripes, a series of concentrically rolled lines (sometimes called a “jelly roll” pattern), and, rarest of all, a more complex variegated pattern that looks something like swirling water or burl wood (such as in [fig. 14](#)).

The quality, approximate date, and sometimes the area of origin of a Tibetan sword can be assessed by considering the following salient features: 1) the form and style of the hilt; 2) the nature of the forging patterns that are visible in the blade; 3) the overall shape of the blade – whether it is single- or double-edged, straight or curved, and whether it ends in a classic Tibetan chisel tip or a symmetrical point; 4) whether the sword is designed to be worn with the cutting edge up or down; and 5), dictated by the latter, the style of the scabbard and whether it is designed so the sword is carried at the waist across the front of the body with the hilt to the wearer’s right (for a sword with the cutting edge up) or suspended from a belt at the wearer’s left hip (for one with the cutting edge down).²⁹ Certain types can be identified as more prevalent than others in the different regions of Tibet based on examples collected and recorded in the late nineteenth and early twentieth centuries by scholars such as Rockhill and as evidenced by their continued use in Tibet well into the twentieth century.³⁰

Taking one particularly interesting sword as an example, we can see how some of these features apply [fig. 14](#). The hilt is an ornate example of the best-known Tibetan type, with trefoil pommel, grip wrapped in silver wire, a short collar below the grip, and oval guard with downturned and cusped edges – the sides of the pommel, collar, and guard chiselled and gilt with matching designs. Unfortunately,

²⁸ On the Tibetan texts devoted to sword blades, and on their construction and metallurgy, see particularly La Rocca, *Warriors of the Himalayas*, 146, 253-7, 264; and La Rocca “An Early Tibetan Text”, 89-94.

²⁹ For examples of each see La Rocca, *Warriors of the Himalayas*, catalogue nos. 55-74. Swords continued to be made in Tibet throughout the twentieth century for wearing during festivals and other occasions. Examples dating from the mid-to late twentieth century often appear in auction sales catalogued as nineteenth century. For two examples probably made c. 1950 to 1975 see Metropolitan Museum of Art, accession nos. 1999.278.1-2.

³⁰ Rockhill, “Notes on the Ethnology”, for example 712 and pl. 22.

the characteristic bead of turquoise or coral mounted in a silver bezel is missing from the front of the pommel. The blade is arguably the finest known example of Tibetan pattern welding of the type that evokes ripples and eddies in swirling water or burl wood grain design. This may be what is described by Tashi Namgyal as made from blending together “mixed iron” (*sna ’dus, sna bsdus ’dres, or lcags ’dres*), creating “many flowing and swirling designs”.³¹ The scabbard, made to be worn suspended at the left hip in the Chinese fashion, comprises a wooden core sheathed in leather and framed with elaborately chiselled and gilt iron mounts, and retains its original sword belt fitted with iron mounts decorated *en suite*. While there are several known examples of Tibetan swords mounted for wear this way, which were acquired from or documented in Tibet, it is interesting to note that this exceptionally fine example, according to its reported provenance, was captured from a Chinese officer by Lieutenant Edward Henry Lenon (1838-1893) during the Battle of North Taku Fort on 21 August 1860, during the Second Opium War. Lenon was awarded the Victoria Cross for his actions on that day.

5 Spears and Spearheads (*mdung dang mdung rtse*)

Tibetan spears made for fighting are fairly simple, sometimes bordering on crude, in terms of workmanship and materials, comprising an undecorated iron or steel spearhead (*mdung rtse*) mounted on a wooden shaft (*mdung yu* or *mdung shing*), the shaft often reinforced by a spiralling iron coil (see [fig. 8]). A few surviving examples preserve a tuft of yak hair and streamers of coloured silk attached to or at the base of the socket of the spearhead.³² More complex, and rich in their variety, are several spearheads that have come to light over the past twenty-five years that were intended for votive, ritual, or ceremonial use, which often include extensive ornament, interesting iconography, and expensive materials. One example of this type has incised decoration featuring dry skulls (*thod skam*) and curling entrails (*nang khrol*) damascened in gold and silver [fig. 15], suggesting it was used by an oracle or as votive weapon kept in the chapel (*mgon khang*) of a wrathful guardian deity.³³

³¹ Cited in La Rocca, *Warriors of the Himalayas*, 168, under catalogue no. 71 in discussion of the comparable blade on a sword in the Pitt Rivers Museum, Oxford (1989.1.1.1.,2), and 255 for a compendium of the original Tibetan texts, one version of which is found in British Library, Or 11,374, fol. 76b. Tibetan blades of ‘mixed iron’ are also discussed in LaRocca, “An Early Tibetan Text”, 93-4.

³² For an example of this see La Rocca, *Warriors of the Himalayas*, 175, and for the topic overall 174-84.

³³ Very similar imagery is also seen on the votive firearms cited at the end of § 8, below.

6 Archery Equipment (*'phong spyad*)

The form and nature of much of the archery equipment found in Tibet, particularly bow cases (*gzhu shubs*) and quivers (*mda' shubs*, *mda' snod*, *dong pa*, among other terms), is dictated by the predominant place of horseback archery throughout Tibet, China and Central Asia from about the seventh century onward.³⁴ To comfortably travel on horseback with, and quickly utilise, a bow and arrows, the bow case and quiver were worn suspended from a waist belt (for a right-handed person the bow is on the left, quiver with arrows on the right), a practice characteristic of nomadic archers in the region for approximately 1,500 years. The Met is fortunate to have two of the rarest and earliest extant forms of a type of long tubular quiver with an open cowl at the top, made of wicker, bronze or iron, and leather, one of which has a radiocarbon date range of 1290 to 1410.³⁵ Stylistically and chronologically, this type is followed by a quiver entirely of leather (*bse dong*), normally decorated in the characteristic shellac technique seen on leather armour as described above. A previously unpublished example dating from the fourteenth to sixteenth century is adorned with large images of the Eight Auspicious Symbols (*bkra shis rtags brgyad*) on a plain ground [fig. 16]. This type of Tibetan or Mongolian leatherwork is particularly prone to damage and distortion, making complete examples such as this one very rare today. More familiar, but still rare in terms of complete examples in good condition, are matched sets comprising bow case, quiver, and belt [fig. 17], which are often adorned with the same motifs and iconography seen on leather arm guards and horse armour, and fitted with pierced and damascened iron mounts.

Tibetan bows (*gzhu*) range from simple self-bows made of wood to composite bows of wood, horn, and sinew. Arrow shafts are made of cane or bamboo, fletched with bird feathers, and fitted with iron heads made in a wide variety of shapes, for which exotic names such as “flesh splitter” (*sha 'brad*) and “pig’s tongue” (*phag lce*) appear in the traditional literature.³⁶

7 Shields (*phub*)

Often overlooked in discussions of Tibetan arms and armour, shields were widely used over a long period of time and consist of two basic types, both round: flat or domed shields made of concentrically coiled

³⁴ La Rocca, *Warriors of the Himalayas*, 187-97 and figs 6-8.

³⁵ Accession nos. 2001.65a, b and 2005.301.3; see La Rocca, *Warriors of the Himalayas*, 188-9.

³⁶ For further details see La Rocca, “Recent Acquisitions. Part 2”, 191-5.

wicker or cane (*sba phub*), and leather shields (*ko phub*), the latter usually imported from Nepal, Bhutan, or India.³⁷ Domed cane shield have parallels in China. More unusual, and unrecognised until fairly recently, is the flat cane type [fig. 18] fitted with radiating iron struts, possibly originating in Western Tibet. The workmanship of the struts is very similar to the iron fittings on Tibetan leather boxes.³⁸ As with other types of historical arms and armour, the use of both forms of shields during various Monlam Chenmo ceremonies and events is well documented in photographs from the thirties and forties.³⁹

8 Firearms (*me mda'*)

Firearms, referring here to handheld weapons and not cannon or other forms of artillery, were introduced into Tibet possibly as early as the sixteenth century, but more likely at some time during the seventeenth century.⁴⁰ Matchlock muskets (*me mda'*) remained the typical gunpowder weapon in Tibet, widely used among nomads for hunting and by infantry and cavalry in military contexts, from that period until the early twentieth century [fig. 19]. However, a number of modern small arms, made in Tibet or imported from elsewhere, were in evidence at the time of the Younghusband Expedition.⁴¹ The matchlock is a simple but fairly effective and surprisingly reliable firing mechanism, the development of which in Western Europe during the late fifteenth century made handheld firearms, for the first time, practical weapons of military significance. Their use on the battlefields of Europe and much of the Islamic world steadily increased, along with regular improvements in firearms technology, making them the dominant weapon in the western world by the mid-to late seven-

³⁷ La Rocca, *Warriors of the Himalayas*, 92-5, and fig. 4.

³⁸ On Tibetan leather boxes see Anninos, "Tibetan Leather Boxes".

³⁹ For a brief overview of historical arms and armour used in the Monlam Chenmo see La Rocca, *Warriors of the Himalayas*, 6 and figs 2, 5-8. For the shields in particular see Tung, *A Portrait of Lost Tibet*, pl. 100 and 101; Richardson, *Ceremonies of the Lhasa Year*, 44. For shields of both types displayed in votive settings in Tibet and Ladakh see La Rocca, *Warriors of the Himalayas*, figs 9, 11, 14, 16.

⁴⁰ For an overview of the use and types of firearms in Tibet prior to the twentieth century see La Rocca, *Warriors of the Himalayas*, 198-213.

⁴¹ On the subject of modern arms in Tibet during this period see Travers in this issue. For a few examples see Allen, *Duel in the Snows*, 54 for mention of an arms factory in Lhasa producing modern breech loading rifles; 115 regarding reports that the Tibetan commander at Chumik Shenko (*chu mig shel sgo*) carried either a pistol or a Winchester rifle; 124 citing a few breech loading rifles, some of Russian manufacture, captured after the conflict at Chumik Shenko. For a detailed first-person account of the types of firearms encountered in Tibet during the Younghusband Expedition, and the effective use of them by the Tibetans, see Ottley, *With Mounted Infantry*.

teenth century. While European small arms technology progressed over the course of three hundred years from the matchlock to wheel lock, flintlock, then percussion firing mechanisms, and from smooth-bore, single-shot, muzzle loading guns to rifles, breech-loaders, multi-shot weapons, modern cartridge ammunition, and even machine guns, in many non-industrialised parts of the world, including Tibet, localised forms of matchlock muskets remained the norm.⁴² As a rough analogy, in terms of effectiveness and capabilities, the differences between Tibetan matchlock muskets and western firearms of c. 1900 could be compared to the differences between a horse-drawn cart and an automobile today.

The average Tibetan musket was a practical implement with little if any decoration. Many examples that are more elaborate exist, however, some inlaid with carved plaques of bone or horn and, more commonly, with applied plaques of silver embossed with auspicious emblems. Examples of the latter, like that seen in [fig. 19], continued to be made for festival use well into the twentieth century. The long prongs or horns (*me mda'i ru*), characteristic of Tibetan muskets, are folded flat against the forestock, projecting forward beyond the muzzle, when the musket is worn slung over the back (as in [fig. 8]), and pivoted downward at an angle and used as a prop to steady the shooter's aim when firing on foot from a standing, seated, or crouching position. Proficiency with muskets in horseback target shooting as a requirement for certain levels of government officials has been well documented.⁴³ The practice is best known through photographs of such events taken during 'The Gallop Behind the Fort' (*rd-zong rgyab zhabs 'bel*), a festival held on the twenty-sixth day of the annual Great Prayer Festival in Lhasa.⁴⁴ Muskets were also depicted as wrathful attributes, or for other symbolic purposes, in *thang kha* paintings and as actual ritual objects, decorated with appropriate iconography, particularly in votive contexts.⁴⁵

⁴² For an excellent overview of the development of firearms and the different types of firing mechanisms see Blackmore, *Guns and Rifles*.

⁴³ On this topic see Travers, "The Horse-Riding"; Shuguba, *In the Presence of My Enemies*, 31-2; Tsarong, *In the Service of His Country*, 11, 51.

⁴⁴ Richardson, *Ceremonies of the Lhasa Year*, especially 56-7.

⁴⁵ For rare examples of the latter see La Rocca, *Warriors of the Himalayas*, a miniature votive musket in catalogue no. 103, a votive musket barrel in number 105, and a complete musket decorated with wrathful imagery in the chapel of Pelden Makzor Gyemo (Dpal ldan dmag zor rgyal mo) in Drepung Monastery (the latter examined and photographed by the author in 2013).

9 Equestrian Equipment (*rta chas*)

The best examples of luxurious saddles (*gser sga*) made for aristocratic laymen or high-ranking religious figures can be considered among the most beautiful and artistically accomplished art objects found in Tibet [fig. 20]. On occasion, finely made bridles (*gser srab*), other elements of tack, such as crupper pendants, and stirrups (*yob*) also rise to this level of excellence.⁴⁶ Tibetan saddles belong to an unbroken continuum in the traditional use of highly ornate, metal-clad saddles, which began in Central Asia as early as the fourth century and ended in Tibet around the mid-twentieth century. There has been an unfortunate tendency in the last several years – among dealers, auction houses, collectors, and some scholars – to attribute what are, in the author’s opinion, unsupported early dates to many examples of pierced Tibetan ironwork, particularly saddles. Although early dates are alluring and tend to increase market value, a finely made saddle does not have to be Yuan or early Ming in order for it to be a significant example of Tibetan or Sino-Tibetan craftsmanship.⁴⁷

10 Marks and Inscriptions

When studying Tibetan arms and armour, it is important to look for marks, inscriptions, and wax seals, instances of which can be seen on items of various kinds, including armour, swords, firearms, archery equipment, and saddles. Marks include letters and numbers that served as inventory records, such as incised or inlaid numbers on armour or a Tibetan letter branded on the underside of a saddle tree; inscriptions may be place names, for instance ‘Or (near Snye thang) on an armoured belt or Rdor brag (Rdo rje brag, in Lho kha) on a saddle; and wax seals (see [fig. 9]), of which there are many well preserved examples on armours for man and horse, and archery equip-

⁴⁶ For an overview and specific examples see La Rocca, *Warriors of the Himalayas*, 214-51. Please note that in the case of catalogue no. 126, the superb c. thirties saddle and stirrups of Surkhang Wangchen Tseten, the museum accession numbers published in La Rocca, *Warriors of the Himalayas* are incorrect. The correct numbers are 2005.427.1 (saddle), and 2005.427.2a, b (stirrups). The remaining elements of horse tack acquired with the saddle and stirrups are accession nos. 2005.427.3-10. An equally fine set of saddle and tack, belonging to Yuthok Tashi Dundrub and made in the forties, was acquired in 2008, after the 2006 exhibition, and accessioned as 2008.81a-h. For the latter see La Rocca “Recent Acquisitions. Part 2”, 201-6. For an outstanding pair of finely worked fourteenth to fifteenth century crupper pendants in the Metropolitan Museum of Art see accession no. 2016.316.1-2.

⁴⁷ For instance, in Jong, *Dragon and Horse*, 58, 126-7, three saddles in the Met’s collection (accession numbers 1998.316, 1999.118, and 2002.225) are reattributed, incorrectly in the author’s opinion, to earlier periods. For these saddles see La Rocca, *Warriors of the Himalayas*, catalogue nos. 122, 111, 112 respectively.

ment, among other pieces, potentially identify the household, monastery, or arsenal in which a piece was originally housed.⁴⁸ Some of these have already provided useful insights and information, while many others, for instance the ink notations often seen on the heavy leather skirts of lamellar armours, or wax seals, are potential wellsprings of information still waiting to be explored more fully.

11 Terminology and Textual Sources

The Tibetan-English glossary of arms and armour terms published in 2006, the first such lexicon of its kind, was created as a practical necessity.⁴⁹ Around 1995, in beginning to study the subject in depth, it was surprising to discover that no useful source of terminology existed, instead there being only a smattering of phonetic terms published in broader studies.⁵⁰ The glossary, as it appeared in 2006, was compiled, for the most part, between 1998 and 2005, with the source material progressing from a survey of all available Tibetan-English and English-Tibetan dictionaries, in print and digital formats, to terms culled from a selection of original Tibetan texts, particularly in the *brtag thabs* and *bzo rig* literary genres. Many of these texts were pointed out, and in some cases physical copies provided, by E. Gene Smith, who was unfailingly generous in his encouragement and support of work in this area of research from the start. In addition, Dr. Amy Heller also identified important texts and patiently answered dozens if not hundreds of questions regarding not only points of translation, but on all aspects of Tibetan art and culture. With the help of these and many other individuals it was possible to glean a significant amount of useful and largely overlooked information from original sources, most of which is incorporated in the various publications cited in this article.⁵¹

12 Examples of Important Recent Findings

Although there was no way of knowing at the time, the relative flood of remarkable objects that steadily streamed onto the market from the early nineties until about 2010 was, for whatever reasons, a fi-

⁴⁸ For these examples, and others, see La Rocca, *Warriors of the Himalayas*, catalogue nos. 1, 3-7, 32, 44-6, 68, 80, 85, 90, 96, 104, 112, 122.

⁴⁹ La Rocca, *Warriors of the Himalayas*, 267-87.

⁵⁰ For instance in Rockhill, "Notes on the Ethnology" and Stone, *A Glossary of the Construction*.

⁵¹ See in particular La Rocca, *Warriors of the Himalayas*, 252-66; "Recent Acquisitions. Part 2", 192-3; "An Early Tibetan Text". In 2018 the contents of the 2006 glossary were added to the 'TibArmy' online Lexicon of Tibetan Military Terminology.

nite supply and is now reduced to a mere trickle. Nevertheless, fascinating and important examples of Tibetan arms and armour still surface from time to time.

A prime example is the recent appearance of this defence for the neck and shoulders, which is the most complete example known of one the rarest forms of iron lamellar armour from Tibet [fig. 21]. It is designed to cover the base of the neck, shoulders, and upper arms to about the elbows, mainly comprising a neck piece of a single row and two sleeves made up of eleven rows of iron lamellae joined by integral leather lacing. Tibetan lamellar body armours in complete and well-preserved condition are rare and usually consist of a sleeveless coat with a distinct waist and comprise twelve to fourteen rows of lamellae (as in [fig. 2]). A few surviving examples have attached shoulder pieces and, in at least one instance, complete sleeves.⁵² A removable or independent neck and shoulder defence of the kind seen here is extremely rare, with only two or three fragmentary examples known at this time.⁵³ However, the type, and what it looked like when worn, is rendered in great detail in *Eighteen Songs of a Nomad Flute. The Story of Lady Wenji*, an early fifteenth century Chinese painted scroll in The Met [fig. 22]. The scroll depicts many warriors in full lamellar armour equipped with shoulder pieces of this kind. In one particularly relevant scene, a seated commander is shown wearing complete armour, but with the shoulder defences removed and being held for him, folded in half and slung over the shoulder of an attendant standing behind him to the viewer's left. To the viewer's right a standing figure in full lamellar armour, with a leopard skin bow case and quiver on his belt, wears the same type of shoulder pieces. This invaluable pictorial evidence confirms the exact nature and use of this extremely rare form of lamellar armour.

Another relatively recent discovery, a helmet [fig. 23] first exhibited in Hong Kong in 2017, presented some intriguing and seemingly contradictory features.⁵⁴ Visual examination showed that the six iron plates making up the bowl are older and of different workmanship than the arrangement of copper plates and struts joining them together, which is in itself a highly unusual method of assembly. Additionally, a helmet bowl of this type should have four or eight under-

52 La Rocca, *Warriors of the Himalayas*, catalogue nos. 1-3, 26.

53 *Gu ge'i gna' grong rjes shul*, vol. 1, 190-1 and pl. CXXI.

54 Runjeet Singh, *Arms and Armour from the East*, 60-3. This catalogue was issued in conjunction with an art fair held at the Convention Centre in Hong Kong from 30 September to 3 October 2017. In it the helmet is incorrectly dated as fourteenth to seventeenth century and the Tibetan numerals that are inlaid in gold on the base of the plume finial were misinterpreted as being "Old Permic script". It comes from a private collection in the UK that was formed in the eighties and included some of the first examples of Tibetan arms and armour to come onto the western market at that time.

lying plates, but never six, further supporting the conclusion that the helmet is a composite or reconstruction of some kind.⁵⁵ Also puzzling was the presence of two sets of Tibetan numbers: 235 engraved in the exterior surface of one of the plates of the bowl; and the number 871 inlaid in gold above that, on the base of the plume finial. Engraved numbers sometimes found on Tibetan helmets are not unusual per se and presumably represent inventory or arsenal numbers (see [fig. 6]).⁵⁶ Numbers inlaid in gold, however, are very rare and would seem to indicate that the object so marked was once part of an important repository or collection. This feature appears to be found on only two other pieces recorded so far, both lamellar armours: one that entered the collection of the British Museum prior to 1910; and another acquired by the Royal Armouries on the art market in 1985.⁵⁷ Both armours are extremely well made and rank among the finest Tibetan lamellar armours known.

How to reconcile and explain the gold inventory number, odd construction, and heterogeneous aspects of this helmet? These characteristics begin to make sense when this helmet is compared with another, possibly the earliest known Tibetan helmet in existence, which it resembles closely in overall form, method of construction, and choice of materials, if not in exacting detail [fig. 24].⁵⁸ It is plausible that the later helmet is a purposeful replica, probably made between the seventeenth and nineteenth centuries, to preserve or commemorate the early helmet, an extraordinarily rare and fragile example dating from the eighth to tenth century, if not before. Perhaps the latter was preserved as a relic of an important historical figure, such as one of the Dharma Kings, and a replica was made of it as a substitute for the fragile original when needed for processional or ceremonial use.

13 A Word on Fakes

Despite the obviously modern nature and even comical appearance of the ‘armour’ in this illustration [fig. 25], fake examples of Tibetan arms and armour just like this have been offered for sale regularly at various auction houses in the West and online for the past fifteen years or more. In fact, modern-made helmets of exactly the type

⁵⁵ On the construction of Tibetan six, eight, sixteen, and multiplate helmets see La Rocca, *Warriors of the Himalayas*, 52-77.

⁵⁶ For examples see La Rocca, *Warriors of the Himalayas*, catalogue nos. 4 and 7.

⁵⁷ La Rocca, *Warriors of the Himalayas*, catalogue nos. 3 and 26, where it is mistakenly stated that the numbers are inlaid in brass.

⁵⁸ La Rocca, *Warriors of the Himalayas*, catalogue no. 8; 8 and 68-9.

shown here have been catalogued repeatedly by sellers as fifteenth to eighteenth century, and only lately have begun to appear at auctions correctly identified as modern. Also seen with some frequency are the silver mounted ceremonial swords made in the mid-twentieth century, which often show up in sale catalogues described as seventeenth to nineteenth century [fig. 26]. As is the case with Chinese weapons, outright fakes of Tibetan arms are becoming ever more sophisticated. Therefore, with some exceptions, most of what is said about Tibetan arms and armour in auction catalogues or as described by the majority of online sellers should be read warily and verified independently.

14 Conclusion

The aim of this paper has been to provide an overview of developments in the study of Tibetan arms and armour over the past twenty-five years, particularly those driven by the emergence of previously unknown types of objects. In addition, it is hoped that the preceding comments, illustrations, and references offer not only a general framework but also an accessible gateway to further exploration of the subject. Because these fascinating objects are intimately intertwined with traditional Tibetan culture, a proper appreciation of them can lead to a deeper and more nuanced understanding of many aspects of Tibetan history, religion, literature, and art.

Iconographic appendix



Figure 1 Sword. Tibetan or Chinese. Fourteenth to sixteenth century. Iron, steel, gold, silver.
© The Metropolitan Museum of Art, Rogers Fund and Fletcher Fund, by exchange, 1995 (1995.136)



Figure 2 Lamellar armour. Tibetan. Possibly sixteenth to seventeenth century. Iron or steel and leather.
© The Metropolitan Museum of Art, Purchase, Arthur Ochs Sulzberger Gift, 2001 (2001.318)



Figure 3 Detail of the exterior and interior of the armour in figure 2, showing the lacing pattern



Figure 4 Eight-plate helmet. Tibetan. Possibly sixteenth to seventeenth century. Iron or steel and leather. Private Collection. Photograph by Sean Belair



Figure 5 Sixteen-plate helmet. Tibet. Possibly sixteenth to seventeenth century. Iron or steel, leather, and yak hair. © The Metropolitan Museum of Art, Purchase, funds from various donors, by exchange, 2017 (2017.160)



Figure 6 Helmet finial inscribed *g.yas* [*g.yas ru*] 252, indicating right wing or division. Private Collection. Photograph by the Author



Figure 7 Helmet decorated with the name of Sultan Mahmud Jani Beg Khan. Central Asian or Russian, Blue Horde. Probably ca. 1342-57. Iron or steel and silver. © The Metropolitan Museum of Art, Purchase, Arthur Ochs Sulzberger Gift, by exchange, 2007 (2007.86)



Figure 8 Reconstructed figure of an armoured cavalryman. Tibetan, Bhutanese, and possibly Nepalese. Ca. eighteenth to nineteenth century. © The Metropolitan Museum of Art



Figure 9 Unidentified wax seal, detail, interior of a Set of Four Mirrors (*me long bzhi*). Tibetan or Nepalese. Ca. eighteenth to nineteenth century. © The Metropolitan Museum of Art, Bequest of George C. Stone, 1935 (36.25.351)



Figure 10 Forearm guard for the left arm. Tibetan or Mongolian. Possibly fifteenth-sixteenth century. Leather, shellac, gold and pigments. The Metropolitan Museum of Art, Purchase, Arthur Ochs Sulzberger Gift, 2005 (2005.301.2)



Figure 11 Head defence (shaffron) for a horse armour. Tibetan or Mongolian. Fifteenth to seventeenth century. Iron, leather, gold, silver, brass or copper alloy, textile. © The Metropolitan Museum of Art, Purchase, Arthur Ochs Sulzberger Gift, 2004 (2004.402)



Figure 12 Horse armour. Western Tibetan. Probably seventeenth century. Wool, cotton, iron, yak hair, leather, horn or wood. © The Metropolitan Museum of Art, Purchase, Arthur Ochs Sulzberger Gift, 2007 (2007.183)



Figure 13 Sword guard. Tibetan or Chinese. Fourteenth to fifteenth century. Iron, gold, silver, copper.
© The Metropolitan Museum of Art, Gift of Steven Kossak, The Kronos Collections, 2014 (2014.533)



Figure 14 Sword, scabbard, and sword belt. Tibetan. Seventeenth to nineteenth century. Steel, silver, copper, gold, wood, coral, leather. © The Metropolitan Museum of Art, Purchase, Arthur Ochs Sulzberger Gift, 2014 (2014.262.1a-c, .2a, b)



Figure 15 Spear. Tibetan. Seventeenth to nineteenth century. Iron, gold, silver, wood, and pigments.
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2004 (2004.340a, b)



Figure 16 Quiver. Tibetan or Mongolian. Fourteenth to sixteenth century. Leather, shellac, pigment.
© The Metropolitan Museum of Art, Purchase, Arthur Ochs Sulzberger Bequest, and Rogers Fund, by exchange, 2014 (2014.71)



Figure 17 Bow case, quiver, and belt. Tibetan or Mongolian. Fifteenth to seventeenth century. Leather, shellac, pigments, wood, iron, and gold. © The Metropolitan Museum of Art, Purchase, Arthur Ochs Sulzberger Gift, 2003 (2003.344a-c)



Figure 18 Flat cane shield with iron struts. Tibetan. Possibly fourteenth to sixteenth century. Cane, iron, and brass. © The Metropolitan Museum of Art, Purchase, Arthur Ochs Sulzberger Gift, 2001 (2001.55)



Figure 19 Matchlock musket. Tibetan. Eighteenth to nineteenth century. Iron, silver, wood, horn, leather, textile. © The Metropolitan Museum of Art, Purchase, Edward V. LaPuma Gift, 2017 (2017.282)



Figure 20 Set of saddle plates (detail of pommel plate). Tibetan or Chinese. Ca. 1400. Iron, gold, lapis lazuli, and turquoise. © The Metropolitan Museum of Art, Purchase, Gift of William H. Riggs, by exchange, and Kenneth and Vivian Lam Gift, 1999 (1999.118a-g)



Figure 21 Lamellar shoulder defence. Tibetan. Fourteenth to sixteenth century. Iron, leather, and textile.
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Figure 22 *Eighteen Songs of a Nomad Flute: The Story of Lady Wenji* [detail]. Unidentified artist, Chinese. Early fifteenth century. Handscroll; ink, colour, and gold on silk. © The Metropolitan Museum of Art, Ex coll.: C.C. Wang Family, Gift of The Dillon Fund, 1973 (1973.120.3)



Figure 23 Helmet. Tibetan. Sixteenth to seventeenth century parts probably assembled and completed in the seventeenth to nineteenth century. Iron, copper, and gold. Private Collection. Photograph courtesy Runjeet Singh



Figure 24 Helmet. Tibetan. Eighth to tenth century. Iron and copper alloy. © The Metropolitan Museum of Art, Purchase, Arthur Ochs Sulzberger Gift, 2002 (2002.226)



Figure 25 Modern reproduction of Tibetan armour for sale in the Barkhor district of Lhasa. 2013.
Photograph by the Author



Figure 26 Short sword made for festival or ceremonial dress. Tibetan. Mid-twentieth century. Steel, silver, coral, turquoise, and wood. Private collection. Photograph by the Author

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Arms and Armour in Ancient and Medieval Tibetan Literature

A Lexicographical Approach

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Abstract This article presents Tibetan terms and expressions for arms and armour originating in Tibetan sources as per research conducted for the *Wörterbuch der Tibetischen Schriftsprache*, a dictionary database that includes sources ranging from the eight to the nineteenth centuries. This survey shows that Tibetan literature bears testimony to the existence of a broad variety of arms and armour in Tibet, which are mentioned in various contexts: Bon or Buddhist sources, historiographical or mythical accounts. By tracing these terms' etymological origins and focusing on the actual use of weapons, we may gain a clearer understanding of the origin, use, and value of arms and armour in Tibetan culture.

Keywords Armour. Bow and arrow. Tibetan dictionary. Helmet. Iron hook. Lasso. Pike. Slingshot. Spear. Sword. Tibetan history. Weapon.

Summary 1 Introduction. – 2 General Terms for Weapon. – 2.1 *mtshon*, *mtshon cha* and *mtshon ka*. – 2.2 *go cha*, *go mtshon* and *dgra cha(s)*. – 2.3 The Collective Term 'khor *gsum*. – 3 Specific Terminology for Weapons. – 3.1 The Lasso (*zhags pa*). – 3.2 The Bow (*gzhu*) and the Arrow (*mda'*). – 3.3 Slings (*'ur rdo*). – 3.4 Firearms (*me mda'*) and Cannons (*dpag chen me stobs*). – 3.5 The Lance, Spear, or Pike (*mdung*, *mdung mo*). – 3.6 Terms for Swords. – 3.6.1 The Sword (*ral gyi* and *ral gri*). – 3.6.2 Specific Terms in Bon Sources. – 3.7 Battleaxes (*dgra sta*), Hammers (*the'u*) and Iron Hooks (*lcags kyu*). – 3.8 The Dagger and the Stake. – 4 Protective Gear. – 4.1 Armour and Shield. – 4.2 The Helmet. – 5 Final Remarks.



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To those who fought the enemy by clapping their hands.

*gri ring min thung min bang bkang /
dgra khang 'og slebs dus skyogs g.yugs //*
Although the storeroom is full of all sorts of swords,
when the enemy appears in one's cellar, it is the
kitchen ladle one throws.¹

1 Introduction

While the Western imagination ascribes to the Tibetans a peaceful life, lived in harmony and close communion with nature, looking back at Tibet's history, it becomes apparent that, for centuries, like every other civilisation, Tibetans fought in many armed conflicts both within and beyond Tibet's boundaries. Naturally, the weapons they used changed over time. In part, it is possible to trace their development through the *Old Tibetan Annals*² and other historiographical accounts that mention weapons in their narratives. Early inscriptions and other old Tibetan documents, such as the *Pelliot Tibétain* (PT) collection, as well as later sources, reveal details about the use of weapons in Tibet, during either internal conflicts or wars with neighbouring peoples, such as the Chinese, Mongolians, and Western Turkic (Dru gu) tribes.

Stories about fighting and killing or about armed or military conflicts reveal a rich terminology related to weapons and armour, and also uncover the coexistence of both autochthonous weapons and equipment adopted from abroad. While these stories might correct our image of everyday life in Tibet, they also illustrate the use of weapons within both Bon and Buddhist ritual practices. In doing so, they open up questions about violence within Tibetan societies and communities, where weapons were used as tools for wars of conquest, conversion to Buddhism, and single combat. What might be stressed with regard to the Buddhist context is that monks also used weapons as tools

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1 Lhamo Pemba, *Tibetan Proverbs*, 36; literally: 'it is filled with swords neither long nor short'. Here, I wish to thank Alice Travers and Federica Venturi for their thorough reading of and commenting on several versions of this article. Further thanks to John Bray, Singapore, and the two peer-reviewers for their comments and suggestions.

2 The *Pelliot Tibétain* (PT) documents, such as the *Old Tibetan Annals*, present written knowledge about the Old Tibetan Kingdom. The scholars A. Stein and P. Pelliot discovered them in the nineteenth century in the grottoes of Dunhuang that had been sealed in the eleventh century. Here, I refer to the edition of Spanien and Imaeda, *Documents Tibétains*.

for protection within monasteries or even during combat with hostile monasteries. Commoners and monks used weapons during competitions and religious ceremonies, such as the New Year Festival.³ Monks and lay ritual practitioners also used them during their ritual practices, for example, to propitiate warrior gods or subdue demons, and weapons were the attribute of oracle priests and numerous deities.⁴

All these manifold uses in Tibetan Buddhist societies show that Tibetans fully integrated arms and armour entirely into their religious worldviews. Since to win a war was as important in Buddhist societies as elsewhere, soldiers, together with their weapons, were blessed and the government typically asked the State Oracle to predict a war's result. Generally, historical texts tend to discuss weapons in a concrete, realistic way. Other literary genres, mainly Buddhist texts and Bon sources such as Shenrap Miwo's biography *Ziji* (*Gzi brjid*, translated as 'The Glorious' or 'Confidence')⁵ repeatedly refer to weapons as instruments that are endowed with a negative connotation. Thus, they often symbolise impurity or, else serve as magical tools. Tibetan Buddhist texts, often translated from Sanskrit, also present the use of both imaginary and real weapons to metaphorically symbolise negative emotions, such as hatred and pride, and, at the same time, view them as tools for annihilating undesirable emotions.

Before investigating the written sources, I wish to briefly reflect on the definition of a weapon. Generally speaking, any common tool can serve as a weapon, whether it be a small kitchen knife, a hammer, or even a vase, which can be used to harm or even kill a person. This is exemplified also in Tibetan literature, which abounds with references to unconventional weapons. For instance, in the *Gesar Epic*,⁶ various groups defeat the enemy using specific items or activities that, under different circumstances, would not be considered weapons: spiritual teachers fight or dispel the enemy with a conch

3 For the use of weapons by monks, see, for example, Khedrup, *Tibetan Fighting Monk*; Maurer, "Obstacles in the Path". For the use of weapons during festivities and rituals, see Richardson, *Ceremonies of the Lhasa Year*, for example, 56-9, 73; and for their exhibition in monasteries, see La Rocca, *Warriors of the Himalayas*, 11-14.

4 See, for example, Heller, "Armor and Weapons", 35-41. Numerous drawings of all kinds of weapons are provided by Beer, *Tibetan Symbols and Motifs*, 267-310.

5 Tibetan Bonpo Monastic Centre, *Gzi brjid*. The title *Ziji* refers to the biography of Shenrap Miwo (Gshen rab mi bo), the mythical founder of Bon religion. The oeuvre consists of 12 volumes, of which Snellgrove translated excerpts in his *Nine Ways of Bon*.

6 The epic of King Gesar of Ling, the mythical ancestor-hero of the Khampas, is well-known in Central and East Asia, particularly Mongolia and Tibet. It may have originated in the eleventh or twelfth centuries' nomadic communities of Inner Asia or north-eastern Tibet. Over time, the oral transmission became embedded in the Buddhist context, turning King Gesar into a Buddhist hero. For further information, see, for example, Samuel, "Gesar Epic" and FitzHerbert, "Tibetan Buddhism and the Gesar Epic".

shell, heroes or warriors use arrows, and women clap their hands.⁷

This article, however, will ignore common tools used as weapons, but instead focuses particularly on actual weapons employed in combat and warfare. As we shall see, the Tibetan texts refer to three kinds of weapon: the so-called protective weapon or armour, the offensive weapon, and the long-range weapon.⁸ Armour, as a tool of defence, protects the body of the warrior, in the cavalry, for example, including the horses. By contrast, so-called offensive weapons, such as swords and daggers, are tools for launching or warding off attacks. Long-range weapons such as slings, bows and arrows and firearms are basically assault weapons. The latter two types of instrument are designed for attacking other sentient beings, thereby diminishing or removing his or her capability regarding defence and attack. They are tools for harming a person's physical integrity or killing them.⁹

By virtue of their focus on armed and military conflicts, most of the stories that constitute the sources for this article concern men rather than women. The above example, in which women dispersed their enemies by clapping their hands, could be seen as a demonstration of the general lack of women's involvement with weapons and in warfare situations in traditional Tibet.¹⁰ In ancient societies, weapons and armour became symbols of chiefs and warlords (*dmag dpon*). A person's ability to lead and preside over a group and wage war qualified him (and, in extremely rare cases, her) to be the principal leader and king, as well as a warlord. Commonly, specific attributes, such as special clothing, headgear, or other identifiers, marked out these leaders. Among these markers were weapons and armour that were not only part of the equipment of men but also part of the attributes of Bon and Buddhist priests. In addition, they came to be related to kingship, and were regarded as symbols of chiefs, rulers, kings, and gods. In India and Tibet, as in most cultures, being a war-

⁷ Stein, *L'épopée tibétaine de Gesar*, 258, ll. 35-6: *pha bla ma brgya yis dung ded dang / stag shar brgya yis mda' ded dang / sman bu mo brgya yis thal ded yod //*.

⁸ This threefold distinction of weapons is drawn from Boeheim, *Waffenkunde*. This standard reference on the study of weaponry in its historical development from the beginning of the Middle Ages to the end of the eighteenth century in Europe traces the origins of weapons and etymology of the terms by which they are known, and also describes their shape in great detail, often pointing to their non-European origins.

⁹ When I reflected on the question of weapons, I came across the definition presented in the German Weapon Control Law. Although it is new, it appears generally applicable; see https://www.gesetze-im-internet.de/waffg_2002/BJNR397010002.html.

¹⁰ In Tibetan society, warfare and combat were possibly, as in most traditional societies, the province of males. But more recent studies on women's active involvement in armed combat draw another picture since "there is, however, a large body of evidence pointing to females bearing arms". Hereby, "the idea of women as warriors has been denied, overlooked, dismissed as a figment of the imagination, or reinterpreted as an instrument to keep society (read women) in line"; see Jones-Bley, "Warrior Women", 35-7.

lord became for a time a necessary attribute of kingship; it was one of the seven precious attributes of royal rule.¹¹

By sampling a set of Tibet's literary sources referring to weapons, this survey makes it possible to sort through the various names for weapons and divide them into categories. These categories depend on the type of weapon, and it is hoped that future researchers might be able to classify them in more detail according to historical period or geographical area. An analysis of the textual context, such as the verbal structure or the descriptive adjectives further detailing the weapon's name, makes it possible to identify whether it might have been used in both military and non-military situations as well as identifying the material of which it was made. Based on the provided information, this preliminary investigation allows us to determine broadly which weapons withstood the test of time, i.e. remained consistently in use; as well as which ones fell out of favour at a certain point; as well as which new ones arrived during the time period analysed (eighteenth and nineteenth centuries), on which more will be said below. In the same way, this analysis also provides initial insights into which weapons were favoured in one area rather than another, or by a certain group rather than another. That is to say, the survey gives us a clearer understanding of the use and social value of weapons within traditional Tibetan societies by providing a list (although non-comprehensive) of the major weapons used in Tibet from the imperial period onward.

This research is primarily based on the wealth of material collected in the *Wörterbuch der Tibetischen Schriftsprache* database, an ongoing project at the Bavarian Academy of Sciences and Humanities.¹² The printed dictionary includes a text corpus starting from the early Tibetan inscriptions and documents originating in the eighth century up to the nineteenth century, the early Modern Age. Since the majority of the database sources are religious texts, which were often translated from Sanskrit, they depict the weapons' metaphoric use. Buddhist translated literature is only included if the quotes appear relevant to the understanding of a term or to complete the picture drawn in the autochthonous texts. Although the selection of sources applied in the dictionary indicates that this is by no means a general survey of the weapons used in Tibet, the autochthonous texts presented here still allow an insight into the weapons and armour's usage and associated terminology. The sources, such as the stone inscriptions (*rdo ring*) and other documents in Old Tibetan, preserve real-life stories about both internal fights and wars against the Chinese, the Western Tur-

¹¹ For a description of the Precious General as one of the seven treasures of kingship, see Beer, *Tibetan Symbols and Motifs*, 163.

¹² For the history of the project, see Uebach, *Wörterbuch*, 1. *Lieferung*, IX-XIII, and Maurer, "Lexicography of the Tibetan Language", 129-30.

tic tribes (Dru gu), and others. They draw a picture of the weapons used in the Tibetan empire (seventh-ninth centuries). Later historiographical texts, such as Nelpa Paṇḍita's chronicle *The Flower Garland* (thirteenth century),¹³ *The Mirror of Royal Genealogies* (*Rgyal rabs gal ba'i me long*, fourteenth century), Tāranātha's *History of Buddhism* (sixteenth century), and some documents from the eighteenth and nineteenth centuries testify whether or not a weapon was still in use several centuries later and what it was called. Other sources such as the *Gesar Epic* and Bon literature illustrate that weapons and armour were the tools of humans and gods, particularly warrior gods and demons threatening humans. The manifold terminology of weapons might originate from still unknown sources, such as the term *ya tsa*, that denotes a 'sword' in the Bon source *Ziji*, or *ka na ya*, another little understood term for 'sword' in Tsongkapa's (Tsong kha pa Blo bzang grags pa, 1357-1419) *Collected Works* (*Gsung 'bum*).

It should also be noted that since this article focuses on autochthonous sources and the actual use of weapons and armour, the material presented is not representative of the dictionary's sources in general. Most of the texts presented here stem from ancient and medieval sources of the eighth to the fourteenth centuries, such as Dunhuang manuscripts, the Bon source *Piercing Eye* (*Gzer mig*) and the historiographical sources *Flower Garland*, the fourteenth century historiographical text titled *Mirror Illuminating the Royal Genealogies*, and Tāranātha's *History of Buddhism*. Sources dating into the seventeenth and eighteenth centuries, such as a poem by the Sixth Dalai Lama, a letter from the ruler Pholhané (Pho lha nas, 1689-1747), *Sources on the History of Bhutan*, and a document by the Karmapa, are relatively rare. Due to the development of the project in the seventies and the focus of Tibetan Studies during its initial stages, the database contains few later historical sources, such as the autobiographies of ministers and so on, hereby probably causing a skewed focus on traditional weapons. It includes, however, the dictionaries of Geshe Chödrak (Dge bshes Chos kyi grags pa) and Dageyab (Brag g.yab Blo ldan shes rab), both written in the twentieth century, the *Clove Pavillion* (*Li shi'i gur khang*), and the Tibetan-Sanskrit dictionary *Mahāvīyutpatti* (eighth century).¹⁴ As a result, the Munich Dictionary presents the Tibetan vocabulary from a linguistic-historical and semantic aspect, as the transliterated quotations of the original texts, together with their translation into German, follow a chronological order.

13 The *Chronicle of Nelpa Paṇḍita* called *Flower Garland* is a historiographical account of the early history of Tibet, starting from mythical times up to the second propagation (*phyi dar*) of Buddhism.

14 For additional clarification, I searched specific weapon terminology in the *Mahāvīyutpatti* and the *Mongolian-English Dictionary* of Lessing which is not included in the database.

This diversity of Tibetan texts reveals the existence of a vast spectrum of weapons that were used in multiple ways. Regarding Tibetan weapons, the reader should keep in mind that frontiers have always been porous, thus often making it impossible to draw strict cultural delineations. In other words, most Tibetan weapons are not particularly 'Tibetan' and are in fact found in other cultures as well. Their shape and material were adjusted to the respective conditions, and as a result narrate stories of transitions.

This article focuses largely on real weapons, as they are of major interest regarding the study of military history. In order to offer a more thorough overview, it includes some references to magical and metaphorically-used weapons, particularly when the terms, phrases and verbal structures serve to provide a broader understanding of the relevant terminology and expressions related to weapons and armour. This article presents the project's autochthonous source material, which I searched for the various terms denoting weapons and armour. In order to attempt a chronological understanding of the diffusion of weapons in certain periods, it identifies the original sources that employ each term and, on the basis of the sources' dates, attempts to pinpoint in which time period Tibetans used a certain weapon or, *a minima* when the source is a literary one, used certain weapons' names.

Before presenting and examining the contexts of our database's terms for weapons in detail, I wish to point out that the terminology of weapons is a difficult matter in any language. Weapons 'travelled' and still 'travel' like people and words all over the globe, so their nomenclature is not entirely consistent from place to place. For example, the shape of swords shows great variety in every European country,¹⁵ and translations from Tibetan to English or German can further increase the problem. To give one example, the Tibetan term *mdung* is rendered as either *lance*, *spear* or *pike*, the pike being a stabbing weapon similar to the lance, or else, a long arrow (*mda' chen*).¹⁶ Strictly speaking, the use of a *lance* and *spear*, however, differs: the lance is applied by stabbing and the spear by throwing towards the target. The auxiliary verb that expresses the action with *mdung* is *rgyab*, a verb meaning simply 'to do' or, more specifically, 'to throw' and 'to hit'. Therefore, its use next to the noun *mdung* fails to clarify the type of action concerned.

In the texts preserved in the database, we encounter, for example, the long-range weapons lasso (*zhags pa*) and arrow (*mda'*). They

¹⁵ For some of the multiple shapes of swords, spears and lances, see Bennett et al., *Fighting Techniques*, 44, 129.

¹⁶ In our database sources, *mda' chen* occurs in literature translated from Sanskrit; see, for example, Zimmermann, *Subhāṣitaratna*, 226-7; Schneider, *Lobpreis der Vorzüglichkeit*, 86, ll. 31-2: *byams pa'i mda' chen pos khro ba'i me nye bar zhi ba yin te //* (The great arrow of love extinguished the fire of anger).

both belong to the group of objects that are considered to be among the earliest weapons. They served primarily as tools for hunting, while nomads and herders also used the lasso to catch animals. Early sources, such as those in the *Pelliot Tibétain* collection, often mention the arrow without the bow (*gzhu*) whereas, in later sources, *mda'* and *gzhu* usually create a union. Generally, however, in the Tibetan cultural areas, the arrow appears to belong to a bow, as darts or arrows were apparently not blown (unlike in the English *blowgun*, a tube with a blowdart).¹⁷ This is also valid for the English *arrow*, that originates from the Old English term *ar(e)we*, related to the Gothic language. *Arhwazna*, *arrow*, and the Latin *arcus* are terms for the bow. If we translate Tibetan *mda'* into German, it turns however into *Pfeil*, a term originating from the Latin *pilum*. The term *pilum*, however, denotes *Speer* and *Spieß*, tools unconnected with a bow. Its equivalents in English include *pike*, *spear* or *lance*.¹⁸

These brief etymological reflections demonstrate the difficulty of designating weapons in general, and particularly when dealing with Tibetan texts. Like any other object of material culture, weapons circulate across territories and once they have reached new places, the possibility to reproduce them also depends on the natural resources available in a particular area. Hence, the lack or abundance of material and/or skill of a craftsman might have changed their shape but not their name. On the other hand, weapons' functional change and use – rather than their modification – might have resulted in another name. Therefore, the analysis of written sources often creates an underlying uncertainty about the full meaning of a word. For example, it remains uncertain that Tibetan *mda'*, everywhere and at all times, denoted an *arrow* shot from a bow and never a *spear* or *lance*, a long and strong arrow, so to speak, that a warrior threw using his own physical strength.

In the following sections, I will present the various contexts in which weapons' terminology is employed in the Tibetan texts collected in the database of the Munich Dictionary. Here I will discuss the terms with their translations, based on various existing dictionaries, as well as on existing translations of the relevant excerpts and my own translations or, in order to avoid an accumulation of quotes, by paraphrasing the respective context. In each paragraph, I will start with the oldest sources available, such as one of the documents in

17 I wish to thank the scholar Jampa Panglung, former staff member of the Munich Dictionary, for discussing these and the following references with me, in Munich in November 2019. As we shall see, there may be exceptions and the so-called *mda' ste'u ka*, the arrow with a hatchet, might not belong to a bow.

18 For definitions of 'pike', 'spear' and 'lance', see the *Oxford English Dictionary* (OED) (<https://www.oed.com>).

the *Pelliot Tibétain* collection or *Tibetan Texts concerning Khotan*.¹⁹ In particular, when the terms are ambiguous and have several meanings, I will refer to dictionaries as well.

It is hoped that the terminological and chronological order of the sections may shed some light on the use and shape of certain weapons, as well as on their development and the possible terminological changes that occurred over time. The reader should keep in mind that this article presents preliminary results that might serve as a basis for further investigation. The illustrative sections start with the general terminology for weapons, then proceed to focusing on single weapons. It is difficult to define clear criteria for subdividing the weapon types since individual categories are often interconnected. Nevertheless, I attempted to apply criteria, such as the weapon's range, hunting weapons, and the application of iron in their manufacture, fully aware that these categories are not mutually exclusive.

The first section on individual weapons starts with the lasso and sling, then bow and arrow, long-range weapons that were also used for hunting all over the world.²⁰ Although, in particular, the manufacture of bows and arrows required certain skills, and the arrows used in war commonly had iron heads, and their manufacture was less laborious than the crafting of pole arms, such as lances, pikes, and swords. In the second group, I examine weapons that are functionally related to arrows, such as the lance, pike, and spear. Since these thrusting weapons could also be thrown at targets, they have a greater range than swords. In the third section, I review the terminology for sword-shaped instruments, the offensive weapons in close combat which were widespread in a great variety of forms. Like bows and arrows, they were used in warfare in Tibet until the twentieth century. The fourth section deals with other miscellaneous weapons, such as the iron hook, hammer, and axe. As far as can be assessed from the sources, these were rarely used. The final section outlines the terms used to refer to other protective equipment, such as helmets and armour.²¹

19 R.E. Emmerick edited and translated texts concerning the history of this ancient Buddhist kingdom on the Silk Road. His work comprises two texts: *The Prophecy of Khotan* (*Li yul lung bstan pa*) and the *Religious History of Khotan* (*Li yul chos kyi lung bstan pa*).

20 For long range weapons, see Boeheim, *Waffenkunde*, 385-430.

21 For the horses' equipment and armour, see La Rocca, "Recent Acquisitions... Part 1", 5-9.

2 General Terms for Weapon

2.1 *mtshon*, *mtshon cha* and *mtshon ka*

The generic Tibetan term for weapon or arms in general is *mtshon*, with its compounds *mtshon cha*, *mtshon ka* and *mtshon kha*. The terms *mtshon* and *mtshon cha* appear in all kinds of literature throughout the centuries, including the eighth century Sanskrit-Tibetan dictionary *Mahāvvyutpatti*, whereas *mtshon ka* and *mtshon kha* are rare.²² The semantic content and use of *mtshon* in literature provide the basis for this analysis, which seeks to present examples of the term *mtshon* in all its variations given above. The examples that include verbs are intended to clarify the different meanings of *mtshon*, and possibly elucidate its different shapes and functions.

To begin with, I present a simple yet distinct definition of the term *mtshon* in one of the basic dictionaries, the *Tibetan-English Dictionary* by Jäschke. He explains *mtshon* and *mtshon cha* as “any pointed or cutting instrument”, and the expression “the four kinds of weapon” (*mtshon cha rnam pa bzhi*) as including four specific weapons, “sword, spear, dart, arrow”.²³ As we shall see, his definition as “a pointed or cutting instrument” matches predominantly the term’s use in Tibetan literature. Hence, the term *mtshon* refers to all varieties of weapons and, from the seventeenth century onward, it is also denotes firearms (*me mda’*, literally ‘fire arrow’). Several sources classify *mtshon* into three types of the cutting instrument knife (*gri*);²⁴ others regard it as a bamboo stick.²⁵

22 See Ishihama and Fukuda, *Mahāvvyutpatti*, 290, no. 6081 *mtshon rtse gcig* “one-pointed weapon”, and no. 6082 gives the synonyms for weapons: *mtshon cha’am lag cha’am mtshon*.

23 See Jäschke, *Tibetan-English Dictionary*, 457, s.v. “*mtshon*”. This raises the question of which tool Jäschke denotes as a “dart”. Did he mean a *plumbata*, some kind of javelin or throwing spear? The term *dart* originates from the Arabic *djerid*, a term also denoting a pike; see Boenheim, *Waffenkunde*, 307.

24 For further details, see § 3.6.1.

25 The *Suvarṇabhāsottamsūtra* or *Golden Light Sūtra* is a Mahāyānasūtra addressing a vast range of topics ranging from the Buddhas’ previous lives to the teaching on dependent arising (*rten ’brel*) and instructions regarding proper governance. It refers, for example, to the ethical duties of those who seek enlightenment, such as compassion. In the story of the hungry tigress, the Buddha shows his complete compassion by offering his body to feed the tigress. He cuts his throat with an old bamboo stick; see Nobel, *Das Goldglanz-Sūtra*, 160, ll. 1-6: *mtshon cha btsal na / gang nas kyang mtshon cha ma rnyed nas / des ’od ma’i yal ga lo brgya lon pa sra ba zhiḡ blangs te mgul pa bcad nas stag mo’i mdun du ’gyel to //* (When he searched for a weapon but could not find one anywhere, he took a more than a 100 year-old bamboo stick, cut his throat and fell to the ground in front of the tigress).

The oldest source for *mtshon* in the material collected in the *Wörterbuch der Tibetischen Schriftsprache* database is in the *Pelliot Tibétain* collection, in the document with the shelf-mark PT 1287. Here, someone uses the weapon to punish delinquents who participated in a conspiracy. The context leads to the interpretation of its meaning as a ‘sword’.

You will never punish others who did not participate in the conspiracy.

Like pigs, you will cleave [the delinquents] with a sword.²⁶

The other early text, dating to the year 865 CE, is the *Religious History of Khotan* where we encounter monks involved in an armed quarrel. Here, members of the clergy fight with weapons in an attempt to kill each other. The passage relates how the monkhood divided into two warring camps. The phrasing here, “fight with weapons” (*mtshon kar bkhye*), fails to reveal the actual type of weapons used: they might be either swords or spears.²⁷

A famous story in Tibetan literature tells of the murder of King Langdarma (Glang dar ma) that is commonly dated to 842 CE. Its version in the thirteenth century source, Nelpa Paṇḍita’s chronicle named *Flower Garland*, reports – whether accurately or not – how the monk, Pelgyi Dorje (Dpal gyi rdo rje), prepared his equipment, that is horse, garment and weapon for the act. The text identifies the weapon as a spear (*mdung*), with which Pelgyi Dorje stabs (*rgyab*) the king through the heart.²⁸

As a cutting instrument, *mtshon* can also be a tool for slaughtering oxen, presumably a large knife or a sword:

When she served them *chang*, and they had nothing to eat, she pointed to the oxen. “Slaughter [the oxen]!” They replied: “We have no weapon”.²⁹

26 Spanien and Imaeda, *Documents Tibétains*, vol. 2, pl. 567, ll. 282-3: *gzhan blo la ma gthogs pa rnams la / bkyon re / phag dang mtshungs mtshon gyis myi dgar re //*

27 Emmerick, *Khotan*, 86, ll. 70-1: *dge ’dun yang ’phral la sde gnyis su chad de / nang ’khrugs nas mtshon kar bkhye ste / dgung ma sangs par / dge ’dun gcig kyang ma lus ste / nang par dkon mchog gsum gyi mying shes shing / ’don pa myed par gyur nas //*

28 Uebach, *Nelpa Paṇḍita*, 120-1, and fol. 14b ll. 6-7: *rta dang ber dang mtshon cha la sogs pa rgyal po gsoḍ pa’i thabs bshams te [...] snying khar mdung rgyab nas bkrongso //*. Nelpa Paṇḍita remarks that, according to other authors, the king was killed by an arrow shot in the forehead.

29 The passage occurs in the *Vinayavastu* (*’Dul ba gzhi*) of the Kanjur; see *Sde dge*, vol. 1, *’Dul ba, ga*, 83b ll. 3-4: *de rnams la chang blud na ’dzar ba med nas des glang zhid bstan de ’di sod cig / de rnams kyis smras pa / mtshon cha med do //*

The vast majority of the references to *mtshon* in the dictionary's database come from non-military contexts. Hence, the entries show that weapons also serve many other purposes. On the one hand, they can occur as the requisites of gods, deities, and ritual specialists be they Bon or Buddhist. During a meditation on the wrathful Bon goddess Tsochok Khagying (Gtso mchog mkha' 'gying, literally the 'Highest Leader Posing in the Sky'), for example, the adept should visualise her with charnel ground ornaments, holding a sharp weapon in her hand (*mtshon phyag na bsnams*).³⁰ Weapons characterise the Bon priests known as 'the armed Durshen' (*dur gshen mtshon cha can*) since they carry weapons as ritual items. They use them to eliminate hindrances, such as the so-called *bgegs* demons which cause problems for the living, the *chungisi* (*chung gi sri*) demons who attack children, the evil spirits (*dre*) on earth, and they use them to dig graves for the dead.³¹ Moreover, weapons such as knives and knife blades (*mtshon dang gri kha*) are singled out as instruments for *gto* rituals.³²

On the other hand, the term *mtshon* appears also in a figurative sense. In his chronicle *Flower Garland*, Nelpa Paṇḍita, for example, uses *mtshon* as an abstract concept. He refers with this term to one of the aspects characterising particular unfavourable periods of time that cause suffering for all living beings on the planet. During these times, when the Three Jewels were unknown, famine, diseases and *mtshon*, that is to say conflict or war, spread across the country.³³ This or similar three-item lists are a reoccurring trope throughout Tibetan literature. It appears, for example, in Bon ritual texts, such as *The Propitiation of the Queen of the World on the Black Female Mule* (*Srid rgyal drel nag ma'i bskang ba*), for short *Sigyel* (*Srid rgyal*), where disease, famine and war are the instruments for annihilating both the enemy and the entire country. Moreover, the term *mtshon* occurs as a metaphor for epidemics capable of destroying one's enemy.³⁴

³⁰ *Srid rgyal*, 2a ll. 3-4. This Bon source is a ritual text for propitiating demons.

³¹ This historiographical account of Tibet's history distinguishes by their specific attributes four types of Bon of Cause (*rgyu'i bon po*) and explains their activities. See Sørensen, *Royal Genealogies*, 145; Kuznetsov, *Gsal ba'i me long*, 49, ll. 7-10: *dur gshen mtshon cha can gyis / gson gyi bgegs sel / gshin gyi dur 'debs / chung gi sri gnun [...] sa'i 'dre brdung ba yin no //*. On the Bon of Cause, see also Namkhai Norbu, *Drung, Deu and Bön*, 45-6.

³² See, for example, Lin, *Systematisierung von gTo-Ritualen*, 169-70, 175-6. The edition and translation of Lin contains Mi pham's (1846-1912) collection of *Gto* rituals for all kinds of purposes related to daily life, such as avoiding disaster and disease, propitiating demons, and so on.

³³ Uebach, *Nelpa Paṇḍita*, 160-1, fol. 25b2: *dkon mchog gsum gyi sgra mi grag par 'gyur te / de'i stobs kyis mu ge dang / nad dang / mtshon gyi bskal pa bar ma byung nas / sems can thams cad shin tu nyon myons par byed do //*

³⁴ *Srid rgyal*, 11b l. 2: *nad mug mtshon gyi dgra yul cham la phob*; also 12a l. 4: *dal yam mtshon gyi dgra bo'i mtha' rgyud thul //*

In conclusion, one can state that from the earliest sources *mtshon* denotes a concrete object, either an object used in military confrontation or a ritual object. It is a tool to kill the enemy, whereby Bon and Buddhist religion legitimates its use as a tool to annihilate evil threats commonly associated with demons. In its abstract meaning, it refers to far-reaching events capable of harming or killing many people such as wars and epidemics.

2.2 *go cha, go mtshon and dgra cha(s)*

Further general terms for weapons are the compounds *go cha*, *go mtshon* and *dgra cha* or *dgra chas*. Occasionally, the monosyllabic term *go* is used alone. The etymology of the syllable *go* in the context of weapons is unclear. The dictionary of Geshe Chödrak defines *go cha* as follows: “iron garment that protects the body” (*lus skyob lcags gos*), and armour (*go khrab*). Dagyab explains it as “military equipment such as armour, helmet and so on” (*khrab rmog sogs. g.yul gyi cha lugs*).³⁵ Early dictionaries of the Tibetan language such as Schmidt, list *go* or *go cha* as “harness, shell, weapon and armour”.³⁶ Jäschke defines *go cha* as “armour” and the compound *go khang* as “arsenal”.³⁷ Both terms date back to the beginning of Tibet’s literacy, as the eighth century Sanskrit-Tibetan dictionary *Mahāvvyutpatti* already uses them. In its section on weapons titled *go mtshon gi ming la*, the term *go cha* is defined as *varma*, “envelope, defensive armour, a coat of mail” or *saṃnāhaḥ*, a term which can also denote “accoutrements, armour, mail, a coat of mail (made of iron or quilted cotton)”.³⁸

In the database sources, the term *go* with its compounds occurs rarely. As a primary oral tradition, the “Conquest of the Fort of Sumpa”, a section of the *Gesar Epic*, is difficult to date but we can assume that the text preserves portions of ancient linguistic material. It uses the term *go* in the phrase *mi rta go*; that is “men, horses, and weapons”. These three were the relevant components that should be considered before a country plunged into a war.³⁹

³⁵ Geshe Chödrak, *Brda dag*, 118; Dagyab, *Tshig mdzod*, 102.

³⁶ Schmidt, *Wörterbuch*, 71: “Harnisch, Panzer, Bewaffnung, Rüstung”.

³⁷ Jäschke, *Tibetan-English Dictionary*, 70-1 does not refer to the monosyllabic term *go* as military equipment (this is striking and worthy of further study, considering how many words related to weapons are compounds of *go*).

³⁸ See Ishihama, Fukuda, *Mahāvvyutpatti*, 288, nos. 6050 and 6051; see also Sonam Angdu, *Lishi*, 4, ll. 10-11, who gives *ya lad* as a synonym for *go cha*; Tenzin, Namdak Nyima, Rabsal, *A Lexicon of Zhangzhung and Bonpo Terms*, 231, translates *ya lad* as “a shield, armour”. For the Sanskrit, see Monier-Williams, *Sanskrit-English*, 926 and 1146.

³⁹ Kaschewsky and Tsering, *Burg von Sumpa*, vol. 2, 56b ll. 1-3: *mi rta go rtsis kher 'don pher nges byas nas / lung[s] rgod kyi chu bo 'bab 'dra //*.

The Bon text *Ziji* that is primary assigned to the oral transmissions as well,⁴⁰ uses the compounds *go mtshon* and *go cha*. It distinguishes nine types of weapons for the warrior gods (*sgra bla'i go mtshon sna dgu*) and nine types of armour for the *asura* (*lha min gyi go cha gling dgu*).⁴¹ For completeness of content, I wish to refer to the translated text, the “Rosary of [the Buddha’s] Life Stories” (*Skyes pa rabs kyi phreng ba*, Sanskrit *Jātatakamālā*), where *go cha* apparently also denotes a tool for protection, such as armour or a coat of mail. Here, the mind is the protection, which the arrow of sorrow cannot pierce.⁴²

The compound *dgra cha* means a ‘weapon’ and may be literally translated as a ‘tool against the enemy’. In the *Mahāvīyutpatti*, it prevents the one holding it from receiving Buddhist teachings:

To someone who holds a weapon in his hand, we will not teach the dharma.⁴³

The dictionaries of Geshe Chödrak (*Dge bshes Chos kyi grags pa*) and Dagyal (*Brag g.yab Blo ldan shes rab*) explain *dgra cha* as “arrow and bow” (*mda' gzhū*). However, they explain the term *dgra chas* differently. Geshe Chödrak describes the term as “tool against the enemy” (*dgra bo'i yo byad*) and Dagyal simply as “a type of weapon” (*mtshon cha'i rigs*).⁴⁴ In his chronicle *Flower Garland*, Nelpa Paṇḍita applies *dgra chas* to a weapon, which he considers a tool that is commonly carried on a journey (*byes na dgra chas tor* [recte *thogs*]).⁴⁵ The term *dgra chas* remained in use for many centuries, as the final reference to it in the database dates to the eighteenth century. In 1727, the ruler of Tibet, Miwang Pholhané or Pholhawa (*Mi dbang Pho lha ba*), mentions *dgra cha* in an epistle to the Chinese Emperor, where he uses it as a generic term for tools needed in military conflicts, such

40 This twelve-volume text, which contains the Bonpo Canon including a biography of Shenrap Miwo, the mythical founder of the Bon religion, is said to have been written in the fourteenth century; see Karmay, “History and Doctrines of Bon”, 110. For further information, see also the article of Kvaerne, “Canon of the Tibetan Bonpo”.

41 Tibetan Bonpo Monastic Centre, *Gzi brjid*, vol. 2, 60 and vol. 1, 485.

42 Hahn and Klaus, *Mrgajātaka*, 58, ll. 9-12: *shin tu yangs pa'i snying rje'i go chas bcings par 'byung ba ni / bdag gi sems 'di sdug bsngal mda' yis phigs par mi 'gyur ro //* (My mind is armed with the shield of great compassion. The arrow of sorrow will not pierce it). For further details, see the chapter on armour. The Tibetan *go cha* translates here the Sanskrit *kavaca*, which is, according to Monier-Williams, *Sanskrit-English*, 262: “armour, cuirass, coat of mail”.

43 Ishihama and Fukuda, *Mahāvīyutpatti*, 402, no. 8562: *lag na dgra cha* [varia lectio] *thogs pa la chos mi bshad*, for Sanskrit *nāyudhapāṇāye dharmam deśaiṣyāmah*.

44 Dagyal, *Tshing mdzod*, 129; Geshe Chödrak, *Brda dag*, 151.

45 Uebach, *Nelpa Paṇḍita*, 68-9, fol. 4b l. 2: *yul na khral ka rtsi* [recte *lci*] / *byes na dgra chas tor* [recte *thogs*] / *bsō ka phyi sgo la gtad* / *phyugs khyim phugs na bso* / *gzhon pa ni mda' stan byed //*

as muskets (*me mda'*) and armour (*a khrab*).⁴⁶ To complete this section, I wish to point out that the *Gesar Epic* also applies *go mtshon* metaphorically by referring, for example, to the weapons of patience and insight.⁴⁷ Moreover, gods, particularly the warrior gods can reside in a weapon (*go mtshon*).⁴⁸

As we have seen, all of these terms originate in early linguistic material, since they occur either in the *Mahāvvyutpatti*, or in sources such as the *Conquest of the Fort of Sumpa*, and the Bon source *Ziji*. According to the database sources, compounds with *go* prevail in Bon literature,⁴⁹ while the dominant term for weapon remains *mtshon*. Already the entries in the *Mahāvvyutpatti* appear ambiguous since the section titled *go mtshon* includes tools called *go cha*. Despite Geshe Chödrak's explanation, since the syllable *cha* refers to any tool or implement in general, the term *go cha*, like *go mtshon*, can apparently refer to both armour and weapon.

2.3 The Collective Term '*khor gsum*

In this last section on general terms for weapons, I will introduce a compound that appears unusual. Several autochthonous texts refer to a specific group of weapons called “the three circles” or “three groups” (*'khor gsum*), an expression that might indicate an effort to classify weapons. The term occurs in a wide range of meanings, unrelated to weapons.⁵⁰ A connection with *'khor lo*, a term that can denote a discus being used as a weapon, is unlikely since “the three wheels” refer to other types of weapons.⁵¹ Jäschke cites Schmidt's dictionary for the interpretation of the “three circles” as “every thing that belongs to archery;” but specifies the term as “more correctly:

46 Schuh, *Siegelkunde*, 83-5, ll. 34-6, 99-102: *spas se khang chen pa'i me mda' sag thag ol sbog a khrab sogs dgra chas rnam sbyin //*.

47 Stein, *L'épopée tibétaine de Gesar*, 196, ll. 18-19: *bzod dang shes rab go mtshon las / lcags gzhu rno mtshon ma dgos kyang //* (Apart from the weapons of patience and insight, one does not need an iron bow or any other sharp weapon).

48 Stein, *L'épopée tibétaine de Gesar*, 255, ll. 24: *go mtshon dgra lha'i rten mkhar yin //*. The *sgra bla* are identical with *dgra bla*. Tenzin, Namdak Nyima, Rabsal, *A Lexicon of Zhangzhung and Bonpo Terms*, 43 and 45, refers from *dgra lha* to '*go ba'i lha lnga* as “the protector deities that are born spontaneously with each individual person”.

49 It might be worth pointing out here that Tenzin, Namdak Nyima, Rabsal, *A Lexicon of Zhangzhung and Bonpo Terms*, 37 quotes the terms *go ban* as “the crowing glory of armour, the pennant of a helmet” and *go zu* as “a garment that protects against weapons”.

50 The term '*khor* also denotes ‘entourage’, ‘retinue’, ‘assembly’, ‘district’ and ‘circuit’; see Maurer and Schneider, *Wörterbuch*, 9, 147-8.

51 The epithet “the one with the discus in the hand” (*'khor lo'i phyag* or *'khor lo'i lag pa*), denotes, for example, the Indian god Viṣṇu; see Maurer and Schneider, *Wörterbuch*, 9, 153.

arrow, knife, and spear”.⁵²

Since *'khor gsum* occurs already in the *Gesar Epic* portion entitled *The Conquest of the Fort of Sumpa*, it might be considered as old linguistic material, dating back as far as the eleventh or twelfth centuries. There, they are understood as an arrow, bow, and sword, since they are attached to or worn on the body.⁵³ This matches Mipham's interpretation in his *Gto Rituals*, where he comments on the three wheels by explaining them as the “arrow, bow, and sword” which the ritual specialist attaches to an effigy.⁵⁴ From a decree in the *History of Bhutan*, we learn that the term was still in use in the eighteenth century. In his translation of a legal decree issued in 1729 referring to the duties of rulers and ministers in the *Sources for the History of Bhutan*, Aris interprets the three wheels more generally as “armour, helmet and weapons” (*go mtshon, go cha* and *dgra cha*).⁵⁵ His interpretation disagrees with that of Wylie in his translation of the *Geography of Tibet* written in 1830 by Jampel Chöki Tenzin Trinle (Jam dpal chos kyi bstan 'dzin 'phrin las, 1789-1838), where he denotes them as an “arrow, lance and sword”.⁵⁶

Since the origin of the Tibetan expression ‘three circles’ (*'khor gsum*) is unclear and its interpretation in the sources varies, a look in the polyglot dictionaries could bring clarity. There, it corresponds apparently with the Mongol equivalent *sayadaḡ qorumsaḡa* which refers to two items only: these are ‘quiver and bow case’. Herewith, we might conclude, that the Tibetan expression seems to denote equipment for the transport of weapons, i.e. the quiver, bow case, and the weapon-belt. The Mongolian equivalent lacks the weapon-belt as third

52 Jäschke, *Tibetan-English Dictionary*, 58; Schmidt, *Wörterbuch*, 62: “das ganze Bogenröthe”.

53 Stein, *L'épopée tibétaine de Gesar*, 205, ll. 15-7: *stag shar pas 'khor gsum bcing le des* // (A young man who attaches the three types of weapons [to his body]). Kaschewsky, Tsering, *Burg von Sumpa*, vol. 2, 143a ll. 4-5: *gnam lha khri bstan dang / a nag dom bu thogs dkar gnyis rdzong nang du yod par khong gnyis kyi khrab rmog 'khor gsum bskor [recte bskon] nas* // (When the two, Namlha Triten and Anak Dombu Tokar were in the fortress, they both donned their armour, helmet and the three weapons [i.e. an arrow, bow and sword]).

54 Lin, *Systematisierung von gTo-Ritualen*, 144: *'khor gsum (mda' gzhu ral gri bcas) / tshang bar btags* // (One should completely attach the three weapons (an arrow, bow and sword)).

55 Aris, *History of Bhutan*, 144, ll. 21-2: *'khor gsum mdo drug tshang ba'i dmag mi dmag gal du 'khod par* // (The soldiers, fully equipped with the three weapons, and the horses were arrayed in the battle line).

56 Wylie, *The Geography of Tibet*, 23, ll. 8-9: *'khor gsum gyi rjes yin zer ba sogs rdo'i ngos su gsal bar babs yod pa la* // . For Wylie's interpretation, see his footnote 340. A similar interpretation is presented by Ekvall in his *Fields of the Hoof*, 90, where he names sword, arrow, and spear as the threefold armament of the rider who guards the herds: in modern times a gun replaces the arrow.

item.⁵⁷ In this context, it might be worth pointing out that the Turkish term *qor* is similar in meaning to Tibetan '*khor* since *qor* means 'rib-and; edge; border; row; armour' and *qorci* 'the keeper of the armoury or wardrobe' who carries a belt equipped with a sword and a quiver.⁵⁸ That is to say, that it is not unlikely that Tibetan '*khor* is linked with *qor*.

The term '*khor gsum* is therefore a good example to exemplify not only the spread of terms but also potential variations in meaning. It is sure that the term designates a unity of three, whereby any of the interpretations given above is possible and can be correct in specific contexts.⁵⁹ Its identification as the weapons arrow, bow and sword emphasises the significance of these three types of weapon in the Tibetan cultural context.

3 Specific Terminology for Weapons

The following sections are dedicated to terms designating specific weapons. As the information on the weapons and armour's material, shape and use provided in these sources is inconsistent, it is difficult to draw general conclusions about their material characteristics and practical functions.

To begin with, I will discuss early weapons, such as the lasso, sling, and bow and arrow. These weapons were easily produced from natural materials, and none required necessarily the use of fire or iron-work skills. In fact, all of these tools, particularly the bow and arrow, were common hunting tools that were in widespread use all over the world. Another significant characteristic is their large operating range. On the basis of this quality, this section concludes – as far as the material collected in the *Wörterbuch der Tibetischen Schriftsprache* database is concerned and given the fact that this material comprises a majority of ancient and medieval literature – with rare references to firearms and canons.

The second set of weapons includes offensive weapons for close combat, which are either wholly or partly made of metal, such as pikes and swords. Their manufacture requires metal processing

57 For Mongol and other language synonyms, see the detailed analysis of the material, shape and terms of weaponry by Kóhalmi, "Abschnitt der Waffenbehälter", 196, she translates '*khor gsum* with "Kreis der Drei" (circle of three) that is "Köcher, Bogenföteral und Waffengürtel".

58 Spiess, "Türkisches Sprachgut", 336-7. Since the author refers to Turkish loanwords in Hindi whereby he also indicates their links with Ottoman and Persian, for example, he shows the spread of terms beyond their linguistic families. According to Lessing, *Mongolian-English*, 965, the Mongolian term *qor* denotes "the part of the quiver where the tips of the arrows are placed".

59 See also Kóhalmi, "Abschnitt der Waffenbehälter", 196 fn. 2.

skills and the ability to work with fire. By contrast with bows, arrows or lassos, these military weapons were primarily manufactured for use in warfare, armed conflicts, and single combat.

The final paragraph is dedicated to miscellaneous weapons, such as iron hooks, hammers, and axes. Warriors, be they foot soldiers or riders, could use these tools in close combat but also throw them across long distances. They were applied during military conflicts, and could, at the same time, be utilitarian tools of daily life, such as hammers for construction work and axes for chopping wood.

3.1 The Lasso (*zhags pa*)

The lasso (*zhags pa*), a looped rope that Tibetans commonly made of hemp (*sro ma nag po*)⁶⁰ or leather, is among the earliest and simplest weapons. In contrast to many other weapons, the lasso is relatively light, and moves swiftly and silently. Irrespective of its use, be it to catch animals, engage in combat or perform rituals, the skill of the thrower determines its accuracy. What information do the Tibetan written sources provide on the lasso in wars and other armed conflicts?⁶¹ They report how warriors defeated their enemies with a lasso: *The Prophecy of Li Country* (*Li yul lung bstan pa*, 983 CE) relates for instance how the Khotanese (Li) ruler caught the King of Kashgar in a lasso in order to kill him.⁶²

Successfully using a lasso requires enormous skill whereby a good throw can make it travel at enormous speed. If the combatant was greatly skilled, he could easily throw the rope while riding. A story in *The Conquest of the Fort of Sumpa* tells that a lasso, while still held in the warrior's arm, made a sound that indicates it was ready to be thrown. Here, the text compares the throw of a lasso with a lightning strike.⁶³ The *Gesar Epic*'s description of capturing animals, particularly horses, with the lasso, connects it with magical power. Other sources assign this characteristic to it as well:

60 Personal communication with Lobsang Yongdan, Bonn University.

61 For the lasso as a war tool in India, see Losch, "Abriß der Waffenkunde", 210-1.

62 Emmerick, *Khotan*, 44-5: *ga 'jag gi rgyal po yang li rjes zhags pas zin nas 'gum par bgyid pa las* // (The king of Khotan also caught the King of Kashgar with a lasso and [ordered] his death).

63 Kaschewsky, Tsering, *Burg von Sumpa*, vol. 2, 80b l. 6-81a l. 1: *bye ma lha'i cho 'phrul gyi phung bdud kyi gru'i khug gi zhags pa'i a long gi seng zer nas sgra zhi g giong byung ba'i khos gri shub du bcug nas zhags pa de glog 'khyugs pa ltar 'phang byung ba'i* // (Through the magical power of Chemalha (Bye ma lha) the ring of the lasso in the arm bend of Phungdü (Phung bdud) resounded with the sound *seng*. Then, he sheathed his sword and threw the lasso like a shining lightning).

Catch the precious horse with the lasso [named] Tongshe, seduce all women with your miraculous power.⁶⁴

The Sixth Dalai Lama uses a similar image in his love songs. He tells of wild horses galloping across the mountain pastures whereby, like in the *Gesar Epic*, men catch them with snares and lassos. The Dalai Lama compares their potency with some kind of magical power that the lover can use to impress his beloved:

Wild horses galloping around in the mountains, you can catch them with snares and lassos.

The beloved turning her face away from me, you cannot impress her with your magical power.⁶⁵

The lasso's whirling flight through the air might have facilitated its connection with magical power, hereby making it a magical instrument in many literary contexts. The *Ziji* also assigns a magical power to this weapon of the warrior gods by referring to "the lasso that grabs [someone] by itself". This very passage lists a whole range of self-performing combat equipment, such as a self-stretching bow, self-shooting arrow, self-striking sword, a shield that surrounds (the warrior) by itself, and other examples.⁶⁶ In these cases, we might also assume that the author attributes specific skills to the bearer of these weapons who needs to control and use them at the right moment. Moreover, the text assigns a specific warrior god to the tool: "Excellent Light with a High Speed" (Dra ma glog gi myur mgyogs can) is the warrior god of the self-twirling lasso.⁶⁷ The Buddhist sources adapted this motive. The fourteenth century historiographical text, *The Mirror Illuminating the Royal Genealogies* attributes the lasso or snare to the "King of the Sky" (Nam mkha'i rgyal po), an embodiment of Tibet's tutelary deity Chenrezig (Spyan ras gzigs), better known as Avalokiteśvara. The other weapon he holds in his right hand is the bow, which symbolises also, without the arrow, both method and wisdom.⁶⁸

64 Stein, *L'épopée tibétaine de Gesar*, 278, ll. 39-40: *cang shes stong chen zhags pas zungs / dangs sman sna tshogs sprul pas bslus //*. Particularly in the *Gesar Epic*, weapons, armour, and parts of them such as a hilt, horses and harness such as the stirrups are personalised as they are provided with their own names; see *infra*.

65 Sørensen, *Divinity*, 188: *rta rgod ri la rgyab pa / rnyi dang zhags pas zin gyis / byams pa ngo log rgyab pa / mthu ngo zin pa mi 'dug //*.

66 Tibetan Bonpo Monastic Centre, *Gzi brjid*, vol. 2, 65, l. 5-66, l. 1: *gzhu mo rang bdung 'di la 'khor / mda' mo rang 'phen 'di la 'khor / mdung mo rang debs 'di la 'khor / phub mo rang 'khyil 'di la 'khor / zhags pa rang sdog 'di la 'khor //*.

67 Tibetan Bonpo Monastic Centre, *Gzi brjid*, vol. 2, 63, ll. 3-4: *zhags pa rang skyil sgra bla de / dra ma glog gi myur mgyogs can //*.

68 Sørensen, *Royal Genealogies*, 335.

3.2 The Bow (*gzhu*) and the Arrow (*mda'*)

All over the world, bows and arrows were among the earliest hunting weapons.⁶⁹ Usually, bows and arrows are made of wood or bamboo, and so are light and easy to carry, for example, in a quiver carried on the back.⁷⁰ Depending on the archer's skill, the bow and arrow can be used while standing, running, or riding.⁷¹ The two are suitable for launching a silent attack and for hitting the target accurately from quite a distance, i.e., nearly 200 meters.⁷² Therefore, they served as a perfect long-range weapon in warfare.

According to Jäschke, the Tibetan term *mda'* refers to "any straight and thin pole or piece of wood".⁷³ To highlight the difficulties regarding the nomenclature which arise when translating Tibetan texts, I wish to refer briefly to the German and English terms for Tibetan *mda'*, which is usually translated as English *arrow*, and German *Pfeil*, two designations with different etymologies and meanings. Both the *arrow* and *Pfeil* are long sticks with a pointed tip that move through the air, and both can be shot with a bow. However, the German term *Pfeil* also denotes a tool that can operate without a bow; a human arm can throw a *Pfeil* or a blowgun can set it in motion. For this kind of application, it is called a *dart* in English. From the Tibetan sources' use and definitions, we can assume that *mda'* denotes rather a *Pfeil* than specifically an *arrow* or *dart*. The term *mda' bo che*, literally 'the big arrow', points to a close relation with pikes. The compound translates also the Sanskrit *tomara*.⁷⁴

Numerous passages in the *Pelliot Tibétain* collection testify that bows, and particularly arrows, were common tools in early Tibet.

69 Hence, arrows are a common burial gift whereas a sword or lance together with a bow and arrows are uncommon. There is also no unanimous opinion on whether arrows and arrowheads in burial objects should be regarded as tools for warfare or indicator of hunting activities; see, for example Hanks, "Reconsidering Warfare", 26-7.

70 For photographs and further information, such as the material and shape of Tibetan arrows, bows and quivers; see La Rocca, *Warriors of the Himalayas*, 187-96. For further descriptions and depictions of arrows, see La Rocca, "Recent Acquisitions... Part 2", 6-7.

71 Demonstrating skills in arrow shooting continued to be valued up until the twentieth century, as is shown by the fact that archery competitions were held in various places in Tibet during New Year ceremonies including the state ceremonies in Lhasa, in particular during the 'Gallop behind the fort' (*rdzong rgyab zhabs 'bel*), and the 'sky archery' (*gnam mda'*) contest, see Richardson, *Ceremonies*, 56-9.

72 See Boeheim, *Waffenkunde*, 389.

73 Jäschke, *Tibetan-English Dictionary*, 272.

74 See Lokesh Chandra, *Tibetan-Sanskrit*, 1227. The term appears in a Vinaya text translated from Sanskrit, the *Pravrajyāvastu* or *Rab tu 'byung ba'i gzhi*. See Eimer, *Übersetzung des Pravrajyāvastu*, 8: *mda' bo che 'phen thabs*, "the throwing of a javelin". For *mda' bo che*, see Ishihama and Fukuda, *Mahāvvyutpatti*, 242, no. 4983. Losch, "Abriß der Waffenkunde", 213, interprets *tomara* as a lance with an arrow-shaped tip ("Lanze mit pfeilförmiger Spitze"). On the unit of bow and arrow and the various methods to shoot arrows, see Kóhalmi, "Der Pfeil bei den innerasiatischen Reiternomaden", 110-13.

These early sources provide some information about the weapons' various materials, condition, and function, applications, shapes and ornamentation. While sharpened wood or bamboo served as common materials for arrows (or pikes), specific kinds could be made of iron.⁷⁵ Arrows are relatively simple instruments with sharp heads but, to make them more powerful, hunting arrows, for example, were feathered. Through this addition, the flight of the arrow was stabilised,⁷⁶ and they were sufficiently strong to pierce a wild yak.⁷⁷

Several texts refer to a specific shape of arrow or its tip. The iron arrowhead's (*mdo lcags*)⁷⁸ shape can also resemble a hatchet or axe (*ste'u ka ma*), a shape that is preserved throughout the literature since documents from the *Pelliot Tibétain* collection, here PT 1287:

Sharp but inefficient are the iron arrowheads with an axe-blade-[shape].⁷⁹

All interpretations of the Tibetan term result in a tool with an axe-blade shape for *ste'u ka ma* or *ste'u kha* which is likely to be derived from *ste'u* for 'axe'.⁸⁰

If we imagine an arrow with an axe-blade head, a specific question arises: how would such an arrow fly when shot with a bow? Does the text really refer to an arrow or something else? In order to attempt to answer these questions, I investigated also the Sanskrit and Mongolian languages for their respective equivalents. The *Mahāvīyutpatti*

75 In Indian contexts, arrows can also be poisoned, a practice which was also followed in the Tibetan borderlands, particularly the frontier areas of Tibet, such as Nagaland. Personal communication with Jampa Panglung in Munich, February 2020.

76 On the feathers' purpose and qualities, and the birds' species they come from, see Kóhalmi, "Der Pfeil bei den innerasiatischen Reiternomaden", 123-7, 149.

77 Spanien, Imaeda, *Documents Tibétains*, vol. 2, pl. 565, ll. 241-2: *rgod kyis ni ma bsgron na / 'brong la ni re myi 'jen //* (If an arrow is not studded with [the feathers of] an eagle, it cannot pierce a wild yak). Tibetan sources provide information on the best time for collecting feathers from different types of birds. The waterfowl's feathers, for example, are best in summer and the eagle's in winter; see La Rocca, "Recent Acquisitions... Part 2", 6.

78 The translation follows Bialek, *Compounds and Compounding*, vol. 2, 133 and 201. She derives the term *mdo lcags* from a contraction of *mda'i lcags*, "the iron of the arrow" in the phrase of PT 1287: *mdo lcags ni ste'u ka ma*, see 199-201.

79 Spanien, Imaeda, *Documents Tibétains*, vol. 2, pl. 575, ll. 484-5: *rno ste ni myi mkhas pa mdo lcags ni ste'u ka ma //*. For an analysis of *ste'u ka ma*, see Bialek, *Compounds and Compounding*, vol. 2, 131-3.

80 The *Mirror of Royal Genealogies* refers to an 'arrow' with a hatchet that cleaves a buzzard or falcon; see Sørensen, *Royal Genealogies*, 349, footnote 1106, "saber-formed arrow head". Kuznetsov, *Gsal ba'i me long*, 160, l. 33: *mda' ste'u kha mas / bya khra rked par bcad //*. The expression *mda' ste'u kha ma* could be short for *mda' lcags ste'u kha ma* and therefore refer only to the arrowhead (*mda' lcags*) and its shape, and not to an arrow.

renders Sanskrit *bhalla* as *ste'u kam* or *ste'u ka ma*.⁸¹ Since the Sanskrit term *bhalla* denotes “a kind of arrow or missile with a point of a particular shape” or “a kind of crescent-shaped missile or arrow”, its actual meaning remains somewhat vague.⁸² Here, we also find three other terms that refer to arrowheads that are, in contrast, spelled *mde'u*: these are the arrow with a calf tooth head (*mde'u be'u so 'dra ba*, Sanskrit *vatsadantaka*),⁸³ the arrow with four-edged head (*mde'u zur bzhi pa*, Sanskrit *tilakocavakam*)⁸⁴ and the arrow with a bird's heart head (*mde'u bye'u* (or *byi'u*) *snying ma*, Sanskrit *mūrkhalikā* or *mudgalikā*).⁸⁵

Although the Mongolian translation apparently does not distinguish between *mde'u* und *ste'u*, the Tibetan terms are clearly distinct: *mde'u* is a diminutive of *mda'*,⁸⁶ the arrow; whereas *ste'u* comes from *sta* (or *sta re*), the axe. Judging from the Sanskrit terminology, only the terms with *mde'u* clearly denote shapes of arrowheads. The *Rāmāyaṇa* names various terms for arrowheads that describe mainly their shapes such as broad-headed (*nālika*), folded-palm-headed (*añ-jalika*), half-moon-headed (*ardhacandra*), to name a few. And, as the collection of the Metropolitan Museum of art shows, the shapes of arrowheads were also many in the Tibetan cultural context.⁸⁷ A historical text that probably originates from the eighteenth century describes the quality and shape of arrows and arrowheads similar to the Indian characteristics in the *Rāmāyaṇa*. Here, we find, for example shapes like hawk beak (*khra mchu*), leaf (*ldeb*), flesh splitter (*sha 'brad*) or pig's tongue (*phag lce*).⁸⁸

81 Ishihama, Fukuda, *Mahāvvyutpatti*, 290, no. 6078.

82 Monier-Williams, *Sanskrit-English*, 748; see also Böhrtlingk, *Sanskrit*, 4, Teil, 253; and Apte, *Sanskrit-English*, 1187; see also Goldman, Goldman, van Nooten, *Rāmāyaṇa*, 1559. I would like to thank Roland Steiner, LMU Munich, for his suggestions and comments.

83 Goldman, Goldman, van Nooten, *Rāmāyaṇa*, 1559, translated “calf's-foot-headed”.

84 Edgerton, *Buddhist Hybrid*, 254. The etymology of the term is not clear. According to Edgerton, Tibetan matches the Japanese interpretation “an arrowhead with four edges or blades”, the Chinese equivalent refers apparently to an “arrowhead with four layers”.

85 Ishihama, Fukuda, *Mahāvvyutpatti*, 289-90, nos. 6076, 6077, and 6079.

86 Köhalmi, “Der Pfeil bei den innerasiatischen Reiternomaden”, states that the additional flask at the tip of the arrow where the fletcher fixes the arrowhead is called *mde rten*, short for *mde'u rten* “the holder of the arrowhead” (Pfeilspitzenhalter) or “the support of the arrowhead” (Pfeilspitzenstütze), 134.

87 For the material, size, weight, shape, and manufacture of arrowheads in greater area of Central Asia, see Köhalmi, “Der Pfeil bei den innerasiatischen Reiternomaden”, 127-33. The significance of the arrow is emphasised by the fact that in the nomadic regions of the greater Central Asia arrow making was a craft in its own right.

88 For depictions of various types of arrows and arrowheads, and a translation in parts of the historical Tibetan work which also refers to the quality of the arrow's material such as reed and feathers, see La Rocca, “Recent Acquisitions... Part 2”, 6-8.

The Tibetan *ste'u kam* or *ste'u ka ma* is the Mongolian *cabciyur* or *cabciyur sumu*. The term denotes some kind of chopping tool or, more specifically, a hatchet or cleaver, while *sumu* denotes a “missile, arrow, bullet, shot, ammunition”.⁸⁹ If we assume that the interpretation of *ste'u ka ma* is correct, then, is this ‘tool with a hatchet’ really an arrow shot with a bow? A hatchet on the tip of an arrow would cause such an imbalance in the tool that it would certainly not fly very far and would miss its target. We might therefore assume that these denominations point to some kind of categorising function rather than explicitly describe the shape. Since *ste'u* is derived from *sta* the term could also refer to a battle-axe.⁹⁰ Further reflection leads to another idea: very common medieval weapons were spears, pikes and javelins, a kind of thrusting pole weapons. Spears with axe-like heads are bearded axes or halberds. In particular, halberds with their pointed tips resemble a pike with an axe or hatchet. Another possibility would be the martel that occasionally has a pointed tip.⁹¹ Though I could, of course, be mistaken, the term *ste'u ka ma* could presumably also refer to thrusting pole weapon with a specific head rather than an arrow shot with a bow.

A document in PT 1287 describes a very precious arrow, furnished with a head of turquoise that the hunter, perhaps a king or high official, kept in a golden quiver (*dong ral*).⁹² The term *dong*, that occurs in Old Tibetan documents, is apparently original Tibetan and abbreviates *mda' dong* for a quiver. This compound stems from *dong po*, *dong pa* or *ldong po*, denoting a tube. In our database, these terms are attested in sources from the fourteenth and seventeenth centuries.⁹³ Literature from the eighteenth century, such as the above-mentioned epistle from 1727 written by Pholhané to the Chinese Emper-

⁸⁹ Lessing, *Mongolian-English*, 154 and 737.

⁹⁰ I wish to thank Joanna Bialek and Donald La Rocca for discussing this topic with me. They both assume that these names for the arrow's iron tip should not necessarily be taken too literally. Personal communications in July 2020.

⁹¹ See, for example, Bennett et al., *Fighting Techniques*, 20; for the various types of halberds, see Boeheim, *Waffenkunde*, 330-42 and 364. For a definition of halberds, “a weapon consisting of a spear and a battleaxe combined”, see the OED. Halberds or similar weapons were also used, for example, in China. However, confirmation of this assumption would require further research since I am not aware of their use in Tibet.

⁹² Spanien, Imaeda, *Documents Tibétains*, vol. 2, pl. 575, ll. 479-80: *gser gyi ni dong ral na g.yu'i ni //*. In the literature translated from Sanskrit, such as Haribhaṭṭa's *Jātakamāla*, the quiver (*dong ba*, for Sanskrit *śaradhi*) is where hunters kept their arrows; see Hahn, Klaus, *Mṛgajātaka*, 30, 52. The notches of the arrows could be lined with turquoise, which gave the arrow a magical power or denoted rank, see Kōhalmi, “Der Pfeil bei den innerasiatischen Reiternomaden”, 123.

⁹³ Kuznetsov, *Gsal ba'i me long*, 100, l. 3: *dong par mda' mang po chug bya ba yin //*. Sørensen, *Royal Genealogies*, 238: “Insert many arrows in the quiver”. The term *mda' dong* occurs also in the mid-seventeenth century biography of Drukpa Kunleg; see Kretschmar, *Brug pa Kun legs*, 57, l. 5.

or, uses *sag thag* to indicate a quiver.⁹⁴ This loanword originates in the Mongolian word *sayadaya*, a term with an ambiguously presented interpretation in the literature. The Mongolian language knows two terms for 'quiver', the other being *qorumsaya* which translates Tibetan *gzhu shubs*, that is the quiver or the case for the bow to protect its end. By contrast, *sayadaya* refers to the quiver for the arrow.⁹⁵ Based on Pholhané's epistle, we might assume that the Mongolian term had replaced the early Tibetan term *mda' dong*, short *dong*. Since the bilateral relations between the Mongols and Tibetans began in the thirteenth century, Mongolian terms gradually entered Tibetan language and also influenced Tibet's political and military culture. Tibet's territorial reorganisation with the development and reform of postal stations is well known,⁹⁶ and this also led to the adoption of Mongolian terms, whereas the investigation of Tibetan-Mongol military relations, particularly the transfer of material culture, remains a desideratum.⁹⁷

Let us examine the general information on arrows. The stories in the Old Tibetan documents reveal information regarding the functioning and usage of arrows. A statement in PT 1287, for example, assigns arrows great effectiveness since even a tiny arrow can kill a strong yak:

Even a tiny arrow shot at a big yak will kill [the animal].⁹⁸

Apart from emphasising the power of an arrow, this quote refers to an arrow that a hunter or warrior shot with a bow rather than to a pike or javelin. In the Tibetan cultural context, the arrow is closely associated with the bow as they form a sort of unit. Even if specific phrases refer to the arrow alone, they imply the use of a bow also.⁹⁹

Hunting animals such as wild yaks led apparently to unforeseeable accidents, despite the sparse human population.¹⁰⁰ Numerous

94 Schuh, *Siegelkunde*, 83-5, ll. 34-6, 99-102.

95 There may already be some imprecision in Lessing, *Mongolian-English*, 656, where *sayadaya* is translated as "quiver, arrow case" and *qorumsaya*, page 969, as "quiver". According to Heissig and Müller, *Die Mongolen, Katalogteil*, 140-3, *sayadaya* denotes the quiver for the bow, whereas the quiver for arrows is called *choromsogo* (phon.), i.e. *qorumsaya*. The term also translates German "Bogenschuh", a case to protect the bow's end. In her analysis of the material, shape and terms of the various quivers based on multilingual dictionaries of the Qing dynasty, Kóhalmi, "Abschnitt der Waffenbehälter", 196-9, comes to an opposite conclusion. Another synonym for *sag thag* or *mda' dong* is *stag ral*, see Maurer, Schneider, *Wörterbuch*, 27, 137.

96 See, for example, Maurer, "Tibetan Governmental Transport".

97 The first studies on Tibetan-Mongol military relations are presented by Federica Venturi and Hosung Shim in *Asian Influences on Tibetan Military History*.

98 Spanien, Imaeda, *Documents Tibétains*, vol. 2, pl. 576, l. 511: *g.yag ched po la mda' phra mos phangna* [recte 'phang sna] *sod krang //*.

99 Personal communication with Jampa Panglung, February 2020.

100 For details on hunting accidents, see Richardson, *High Peaks*, 149-66.

passages in the old manuscripts, such as PT 1071, report hunting with arrows, and particularly hunting accidents resulting in fatalities. Shooting a person with an arrow was considered a severe offence and, therefore, legally judged in the same vein as homicide.¹⁰¹ The frequency of casualties caused by hunting accidents is reflected in Tibetan legislation, as the authorities established legal rules requiring compensation (*myi stong*) for these cases. PT 1071 reports compensation for a death due to being shot by an arrow, as an anecdote reveals that a civilian killed a military person with a misdirected arrow that was intended to kill an animal, with the result that he had to pay compensation (*myi stong*) of 150 *srang*.¹⁰²

The numerous mentions in Old Tibetan documents, particularly of arrows, indicate that these were relatively common tools that people could manufacture by simple means.¹⁰³ As they were used for hunting, they were not assigned to a specific class of people, as in the case of, for example, swords. Particularly precious arrows with turquoise arrowheads kept in a golden quiver are likely to belong to a king. Titles and high military ranks such as *mda' dpon* and *mda' spyi* in the Tibetan army, translated as 'general' or 'commander' and 'General-in-Chief' emphasise the importance of this weapon.¹⁰⁴ But arrows were the weapons of commoners as well. Nevertheless, their use conflicted with Buddhist teaching, and therefore particularly monks were supposed to avoid engaging in shooting. In his chronicle, Nelpa Paṇḍita judged monks as mad (*smyo*) when they shot arrows. Following the murder of Ralpachen, King Langdarma (Glang dar ma) is said to have forced the Buddhist monks to arm themselves with bows and arrows and to violate the order of not killing sentient beings by hunting and

101 Spanien, Imaeda, *Documents Tibétains*, vol. 2, pl. 379, ll. 24-7: *mda's ni phogste / nga'i / mda' ma yin ces / mchi / snyon snyon ma tshangs dang / mda's phog pa gus [recte gum] yang rung / ma gum yang rung / thong / myi khriims bzhin du dgum //* (Someone was struck by an arrow. If [the accused] says 'This was not my arrow' but is not exonerated, he is - no matter if the person struck by an arrow was killed or not - to be killed according to the law for murder). Similarly, Spanien, Imaeda, *Documents Tibétains*, vol. 2, pl. 379, ll. 13-15.

102 Spanien, Imaeda, *Documents Tibétains*, vol. 2, pl. 392, ll. 277-80: *rgyal 'bangs rgod do 'tshald / dang stong mnyam ba zhig la / g.yung ngo 'tshald dang / lho bal btson / yan cad kyis / ri dags la / stsog / pa la / mdas rngul phas phog pa dang / gum [...]* *myi stong du srang brgya' lnga bcu babste //* (For every military subject and someone equal who passed away after he was hit by an arrow shot at deer by a non-military subject or a *lho bal* prisoner, a compensation of 150 *srang* is to be paid).

103 Because of the ease of making bows and arrows, these weapons were probably the most common weapons among the Mongols as well, see Venturi, "Mongol and Tibetan Armies on the Trans-Himalayan Fronts", 34 fn. 15.

104 For reflections in the titles, see, for example, Travers, "Horse-Riding and Target-Shooting Contest", 3-4, and fn. 23.

killing animals.¹⁰⁵ According to a nineteenth century legal document (*bca' yig*) by the fourteenth Karmapa, the use of arrows in multiple ways was relatively common until modern times. This document forbids monks, as well as lay people, to kill animals and play around with arrows (*mda' rtsed*).¹⁰⁶

In Tibetan and Indian culture, archery is one of the skills that a warrior must acquire for warfare. Together with lances (*mda' chen*) and battle-axes (*dgra sta*), bows and arrows were used in military conflicts.¹⁰⁷ In the literature, arrows are assigned great power, which is why they also appear, together with bows, as magical weapons. The Bon source *Ziji* illustrates a bow that bends by itself and an arrow that shoots by itself.¹⁰⁸ Another Bon source, the *Zermig* (*Gzer mig*), describes the specific technique of using an iron arrow which the archer places “rotating in the bow”. The text assigns it such a strong power that it can pierce through nine iron shields.¹⁰⁹ I understand this technique as a sort of preparation to make the arrow rotate faster, probably referring to the fact that arrows rotate while flying toward their targets. The rotation of the arrow makes its flight stable and thereby more accurate, since its tip remains pointed in the right direction. Another factor, which might have been more important, is that rotation corrects the irregularities of the shaft. Without any rotation, these irregularities would change the arrow’s trajectory.¹¹⁰

In contrast to the arrow, information on the bow, its material, shape or decoration is rare. PT 1287 describes a bow as having white ends and being decorated with yak horn (*'brong gi ru*).¹¹¹ The *Gesar Epic* refers to a bow made of iron, *lcags gzhu*, a term that could also

105 Uebach, *Nelpa Paṇḍita*, 118-9, fol. 14b l. 2: *btsun pa kun rtags dang phral / rtags 'bor du ma btub pa kun la / mda' gzhu [...] gtad nas lings la bkod //*. See also 122-3, fol. 15a l. 6: *btsun pa khyi khrid / rnga bshang [recte gshang] rdung / mgo la bya sgro btugs / sham thabs sdzes [recte rdzes] nas ri dags la mda' 'phen pa g.yo dge 'byung gi[s] mthong nas //* (Yogechung (G.yo dge 'byung) saw monks who walked dogs, beat drums and rang a bell; those who attached feathers to their heads, rolled up their lower garment and shot arrows at the deer).

106 Schuh, *Dagyab, Urkunden, Erlasse und Sendschreiben*, 247, ll. 28-9: *dud 'gro srog gcod pa mda' rtsed rdo skor glu gling har rgyug skad 'gyang [recte rgyang] rtsid cho[s] sogs [...] byas mi {m}chog cing //*. For the German translation, see 244.

107 Zimmermann, *Subhāṣitaratna*, 226-7: *mda' dang mda' chen dgra sta dang / mtshon cha yis ni g.yul 'gyed cing //*

108 Tibetan Bonpo Monastic Centre, *Gzi brjid*, vol. 2, 65, ll. 5-66, l. 1: *gzhu mo rang bdung 'di la 'khor / mda' mo rang 'phen//*

109 Tenzin Namdak, *Gzer mig*, 668, ll. 5-6: *lcags kyi mda' ni kril gyis bkang // lcags kyi mda' ni [...] lcags kyi phub dgu lcur phyung na //*

110 <http://www.bogensport.cc/traditionell-bogenschiessen/trad-bogen-schiessen/technisches/pfeilrotation/index.php>.

111 Spanien, Imaeda, *Documents Tibétains*, vol. 2, pl. 575, ll. 483-5: *drag ste ni myi mkhas pa mcho gar ni 'brong gi ru / rno ste ni myi mkhas pa mdo lcags ni ste'u ka //*. For an analysis of *mchog gar*, see Bialek, *Compounds and Compounding*, vol. 2, 40-3.

refer to a crossbow, another ancient weapon.¹¹² The biography of Padmasambhava provides the designation of the Bowman who is called *dpag chen*, literally ‘the large dimension, great measure’, an expression which is likely to stress the long range of the arrow.¹¹³

3.3 Slings (*'ur rdo*)

Another ancient weapon that is designed to hit a target at long distance is the sling (*'ur rdo*), which propels stones through the air. The sling is usually made of dark and light yak hair mixed with other wool, and throws a single stone as its projectile. A special category is the so-called ‘nine-eyed’ sling.¹¹⁴ The sling’s swing through the air before the stone is released resembles the action of a lasso. By contrast with the lasso, the fighter swings the sling with the stone at the side of his body and not above himself. In order to hurl the stone, the fighter releases one end of the rope. Tibetans used slings frequently in daily life since particularly nomads or other cattle breeders used them to herd their animals and also to hunt small animals. Their range is said to reach as far as 300 meters.¹¹⁵ Literary sources in our database are, however, rare. The *Gesar Epic* describes the sling as a very powerful weapon. If the fighter flings it through the air like sparks of lightning, the stone can even split rocks into small fragments.¹¹⁶ The epic also refers to its metaphorical use since it is, like other weapons, considered a seat of the warrior gods.¹¹⁷ Many

112 Stein, *L'épopée tibétaine de Gesar*, 196, ll. 18-19: *lcags gzhu rno mtshon ma dgos kyang* // For detailed descriptions and depictions of various crossbows all over Europe, see Boenheim, *Waffenkunde*, 401-30. For crossbows and related weapons in the medieval and early modern Indian sources, see Slaje, “Schleuder, Katapult, Armburst und Kanonen.”, 131-6.

113 For the reference in the biography of Padmasambhava, see O rgyan gling pa, *Gu ru pad ma 'byung gnas*, 66a ll. 5-6. The expression *dpag chen* occurs again in the term for the cannon, see § 3.4.

114 For a detailed description of a Tibetan sling, its manufacture and use in daily life, see Desrosiers, “Tibetischen Schleuder”, 177. The popularity of the ‘nine-eyed’ sling is reflected by a Tibetan street song which mentions how the Chinese Communist government managed to place its troops and officials in Lhasa without combat; see Goldstein, *Modern Tibet*, 170-1. For slings in India, see Slaje, “Schleuder, Katapult, Armburst und Kanonen.”, 111-26. Slings were widespread as weapons of war in Europe as well, see Boenheim, *Waffenkunde*, 385-8.

115 Chodag, Tibet, 257.

116 Stein, *L'épopée tibétaine de Gesar*, 266, ll. 30-31: *'ur rdo thog zil me stag tshubs se 'phangs byung bas brag dkar de rdul phran du gtor* // (When the sling was hurled like spraying sparks of lightning, [the stone] scattered the white rock into small particles).

117 Stein, *L'épopée tibétaine de Gesar*, 266, ll. 12-13: *ngas lag na bzung ba'i 'ur rdo 'di / dgra lha'i rten mkhar dang po yin* // (The sling I hold in my hands is the first residence of the warrior gods).

centuries later, the tool occurs as a requisite in *Gto* rituals to defeat demons and also in Tibetan religious dances.¹¹⁸ In military conflict, Tibetans used these weapons until the twentieth century.

3.4 Firearms (*me mda'*) and Cannons (*dpag chen me stobs*)

To round off the topic of long-range weapons, the following passage presents just a few references to firearms and cannons. These terms occur rarely in the database, since the material collected in the *Wörterbuch der Tibetischen Schriftsprache* is primarily drawn from ancient and medieval literature. Even a further search of the documents published by Dieter Schuh failed to bring forth any further quotes about firearms. Only the above-mentioned epistle that Miwang Pholhané wrote in 1727 to the Chinese Emperor mentions firearms (*me mda'*). Miwang's epistle points out that muskets (*me mda'*) and armour (*a khrab*) were among the equipment given to the Mongols who were subject to the Emperor's rule.¹¹⁹ Since we know these firearms spread gradually within Tibet from the sixteenth century onward,¹²⁰ the fact that there is no more than a single mention appears still surprising, but this is certainly due to the nature and time period of the selected sources in the Munich database. The only document that mentions a cannon dates from 1796 and concerns a grant of legal privileges and estates. A certain Tenzin Namgyal (Bstan 'dzin rnam rgyal) issued the deed (*she bam*) which refers to a cannon that was delivered to the Sikkimese palace Raptentsé (Rab brtan rtse) in the context of the Gorkha war in 1788.

When the Gorkha troops had been repelled, he sent five prisoners and 300 weapons together with a cannon to Raptentsé.¹²¹

The term for the cannon *dpag chen stobs me* clearly tries to express its function, that is to say its long range (*dpag chen*) and the use of fire power (*stobs me*). Since cannons are particularly difficult to trans-

118 Lin, *Systematisierung von gTo-Ritualen* 2005, 187: *rdo la sogs pa skud pa sngo dmar gyi 'ur thog gis dgra phyogs su 'phang bas dgra bgegs brlag par bsams la* // (By hurling the stones in the direction of the enemy with a sling made of blue and red strings, you imagine that the *dgra bgegs* are destroyed). See Nebesky-Wojkowitz, *Religious Dances*, 84.

119 Schuh, *Siegelkunde*, 83-5, ll. 34-6, 99-102.

120 La Rocca, *Warriors of the Himalayas*, 198.

121 Schuh, *Dagyab, Urkunden, Erlasse und Sendschreiben*, 20, ll. 13-14: *gor dmag phyir 'ded kyi btsong lnga mgo* [recte *go*] *lag sum brgya dpag chen me stobs g.lag cha* [recte *lag cha*] *bcas rab brtser rim btang dang* //. For the German translation, see 18-19. The term that denotes weapons here is *go lag*.

port in high mountain areas, they must have been rare. Tibetan cultural areas however had numerous references to smaller firearms such as guns and pistols which were often kept in private households, at least in the late nineteenth and twentieth century. Therefore, these two references, included here for the sake of comprehensiveness as far as weapon types are concerned, clearly do not enable us to form an opinion about the extent of their diffusion.

3.5 The Lance, Spear, or Pike (*mdung*, *mdung mo*)

This section deals with pole arms or pikes, a category which includes stabbing, thrusting, or cutting weapons and some kinds of missiles. Since antiquity, soldiers have used them in single combat as well as larger battles. Generally speaking, this type of weapon consists of two parts: a long shaft or pole, usually wooden, with an iron blade attached to it. Since they partially consist of metal, their manufacture required skill in ironworking, and was more laborious, time-consuming and costlier than the manufacture of lassos, slings, bows and arrows. The shape, length, and width of both the blade and the shaft vary broadly, and their nomenclature in English indicates whether they were used as a throwing weapon (spear, dart and pike) or stabbing weapon (lance). The length of Tibetan spears ranges from about 1.70 meter to 5 meters. It may therefore be difficult to distinguish the shorter ones from pikes or javelins, that is “a light spear thrown with the hand with or without the help of a thong; a dart”.¹²² The dart is “a pointed missile weapon thrown by the hand, a light spear or javelin; also applied to pointed missiles in general, including arrows”.¹²³ According to the analysis of European weapons, their use as a throwing weapon in cavalry required an extension of their shaft from 3.5 to 4 meters. The javelin thrown by foot soldiers is about 2 to 2.5 meters long. The term dart originates most likely from the Arabic term *djerd*.¹²⁴

In Tibetan, all these long, stabbing weapons are referred to as *mdung* or *mdung mo*, although, technically speaking, the spear, lance,

¹²² For a definition of ‘javelin’, see the OED.

¹²³ For spears and spearheads in seventeenth to nineteenth century Tibet, see La Rocca, *Warriors of the Himalayas*, 174-84. For the definition of ‘spear’ and ‘dart’, see the OED.

¹²⁴ For a detailed analysis of the pole arms with their varieties and usage, see Boehm, *Waffenkunde*, 305-30. Translated and autochthonous Tibetan sources, such as *Viśeṣastava*, see for example Schneider, *Lobpreis der Vorzüglichkeit*, 232, ll. 5-6 and 11-2; the biography of Padmasambhava, see O rgyan gling pa, *Gu ru pad ma 'byung gnas*, 41b l. 5 and *The Mirror of the Royal Genealogies*, see Kuznetsov, *gSal ba'i me long*, 5, ll. 19-20 also refer to stakes (*gsal shing*). These wooden instruments, resembling a pike, were apparently used to punish and kill criminals, for example. There are no quotes related to their usage in warfare.

and javelin or dart are used differently. Tibetans call the short spear, lance, pike, or javelin *mdung thung* or *'thab mdung*.¹²⁵ The term *mdung thung* occurs already in the *Mahāvvyutpatti*'s section on weapons as a translation of Sanskrit *śakti*.¹²⁶

The oldest sources that provide information on metalwork, weapons, and armour are the *Ziji* and the *Gesar Epic* (considering their earlier oral transmission). In particular, Shenrap Miwo's biography, *Ziji*, with its *zhang zhung* vocabulary and descriptions of metalwork, points to the origin of smithery in the Tibetan Empire during the first millennium BC. Although the editors of the text probably revised and adjusted the information to suit more modern conditions, the preserved vocabulary alone, with its abundance of types of metal and richness of military equipment, such as the various weapons, helmets and insignia assigned to various social classes, suggests that the text preserves ancient knowledge on state and military organisation, arms production, and warfare.¹²⁷ Since the empire of Zhang zhung is assigned to the western Tibetan region, the findings of this Bon source could indicate an influence or even introduction of iron technology from the west of Tibet. According to the present state of research, Tibet had strong ties with Central Asia, the Sasanians, and Sogdians from whom they imported weapons, armour, and mail, as well as knowledge of how to manufacture them. By contrast, forging is said to have developed in China only from the sixth century AD,¹²⁸ a fact that could explain the emergence of smithery centres in the Derge area in eastern Tibet. As we shall see, these metal weapons and armour, in particular, served as status symbols for political leaders.

The first historical references to ironwork in the Tibetan Empire occur in documents from the *Pelliot Tibétain* collection, which describe the use of metal weapons with an indirect reference to smithery. The frequent references to metal weapons in PT suggest also that metalwork was already well established by the beginning of the Tibetan empire, thus reinforcing the assumption of its early introduction in ancient Tibet. Therefore, by the eighth century, smithery appears to have been a common handicraft, introduced from the areas to the west and northwest of Tibet.

125 Jäschke, *Tibetan-English Dictionary*, 272. See also Schmidt, *Wörterbuch*, 268.

126 Ishihama, Fukuda, *Mahāvvyutpatti*, 289, no. 6067; for *mdung*, see 6059, Sanskrit *kunta*; for a lance with three tips called *mdung rtse gsum pa*, Sanskrit *triśūla*, see 6064.

127 See Bellezza, *Zhang Zhung*, 238-44. Hummel, "Schmied in Tibet", 264 also dates ironwork to the first millennium BC, and bronze work that dates back even earlier than this. These theories would have to be proven by archaeological findings.

128 Clarke, "History of Ironworking in Tibet", 21-3. Hummel, "Schmied in Tibet", 263, also pointed to the Middle East as the source region for metallurgy in India and Central Asia. I also would like to thank Jampa Panglung, Veronika Ronge and Lobsang Yongdan for discussing this issue with me.

The entries in the Munich database stemming from these three sources equally mention, like the other weapons discussed so far, *mdung* as a tool which possesses magical power. In PT 1287, for example, *mdung* functions as a divine (*lha'i dkor*) or magical instrument (*'phrul gyi dkor*). As it acts by itself, this self-thrusting lance (*mdung rang 'debs*) grants enormous power and strength to a warrior.¹²⁹ Another story in PT 1287 reports golden spearheads (*gser gyi mdung rtse*) which the ruler Longam (Lo ngam) used as magical instruments. He attached them to oxen horns in order to attack *btsan* demons.¹³⁰ They are also the requisites of ministers, and to keep them functioning well, they had to be sharpened.¹³¹

As we have already seen above, a similar motif occurs in the Bon source *Ziji*, where the word *mdung mo* implies the warrior gods' action of magically thrusting. The tool, be it a spear or lance, needs no agent but works by itself. With an evocation, the warrior gods are called on to gather around specific magical weapons, including a bow (*gzhu mo*), arrow (*mda' mo*), and spear (*mdung mo*).¹³²

The power and speed of this weapon are exemplified in *The Conquest of the Fort of Sumpa*, which compares *mdung* with a meteor that hits a person's body.¹³³ The image of a meteor flying through the air suggests that *mdung* denotes here a throwing spear or javelin.

Another passage in the same text probably uses *mdung* to denote a different weapon. The story tells about warriors who fought in competitive duels in the past. The winner was only decided after two or more combats with several weapons. First, warriors fought with a

129 Spanien, Imaeda, *Documents Tibétains*, vol. 2, pl. 557, ll. 10-12: *lha 'i dkor mdung rang 'debs dang* [...] *'phrul gyi dkor ched po mnga' ba' rnam bdag la stsal na phod* // (If you grant me divine tools such as the lance that throws itself, [and other] great magical tools that you possess, I will have the courage [to fight]).

130 Spanien, Imaeda, *Documents Tibétains*, vol. 2, pl. 557, ll. 16-17: *'ung nas lo ngam gyis glang po brgya' la / gser gyi mdung rtse nyis brgya' rwa la btags te / rgyab du thal ba bkal nas / glang nang 'thab ste / thal ba gthor nas / de 'i nang du lo ngam gyis brgal to* // (After this, Longam attached two hundred golden spearheads (*mdung rtse*) to the horns of two hundred oxen and loaded ashes on their backs. He fought amidst these oxen and dispersed the ashes. Then, Longam attacked [the ruler] among them). For *mdung rtse*, see also Spanien, Imaeda, *Documents Tibétains*, vol. 2, pl. 558, l. 57. The term *mdung rtse* refers to the tip of a spear just like *mda' rtse* refers to the tip of an arrow.

131 See O rgyan gling pa, *Gu ru pad ma 'byung gnas*, 314b ll. 2-3: *blon po rnam kyi mda' rtse mdung rtse bdar* //.

132 Tibetan Bonpo Monastic Centre, *Gzi brjid*, vol. 2, 65, l. 6-66, l. 1: *sgra bla gnyan po rten du bzugs* [...] *gzhu mo rang bdung 'di la 'khor / mda' mo rang 'phen 'di la 'khor / mdung mo rang 'debs 'di la 'khor* // (Mighty warrior gods, stay as support. Assemble around the bow which stretches by itself. Assemble around the arrow which shoots by itself. Assemble around the sword which cuts by itself).

133 Kaschewsky, Tsering, *Burg von Sumpa*, vol. 2, 45a ll. 5-6: *nyi 'bum gyi gdong bkag nas 'phrul mdung me lce hur de skar mda' ltar rgyab byung ba'i* // (To defend against Nyibum, his magical lance [called] 'Sudden fire tongue' hit him like a shooting star).

mdung, which might denote a lance here, since fighters used them at some physical distance from their opponent. Then, they continued the fight with a *gri kha*, a term that can denote a simple knife but here probably also refers to a larger instrument, such as a sword, a curved dagger or a large knife. The fight was over when the warriors put away the *gri kha* by inserting it into its sheath (*gri shub*).¹³⁴

The database provides also the Sanskrit term *ka na ya* for spear. Its adoption emphasises the idea of the migration of terms and weapons across borders. The Gélukpa master Tsongkapa's (*rje* Tsong kha pa blo bzang grags pa, 1357-1419) introduces this term for a spear of half length or a short spear in his *Collected Works* (*Gsung 'bum*). Here, it is a tool applied in a ritual. This corresponds with Edgerton's explanation in his *Buddhist Hybrid Sanskrit Dictionary*, where he points out that the Sanskrit term is rare, a remark that could indicate that the weapon originated elsewhere.¹³⁵ Tsongkhapa describes a peculiarity of this spear or javelin, which is the rope attached to it that allows the warrior to pull it back after usage, a device which prevents the warrior from losing the weapon if he fails to hit his enemy. Apparently, the roped spear was used in Tibet. In a specific competition that combined riding and shooting, the rider flings the spear at a target whereby the rope allows him to drag it back immediately.¹³⁶

Kanaya is half a spear, a short spear with a rope attached to it. One winds up the spear and throws it. With the rope, one can pull it back.¹³⁷

In contrast to this, the *Mahāvvyutpatti* uses the Sanskrit term *prāsa* as equivalent for *mdung ngam thag mdung*; that is, a "spear (or lance, pike) or spear with a rope".¹³⁸ The database, however, has no reference for *thag mdung*.

To close this section, I wish to introduce a passage from the *Geography of Tibet* where the lance is ascribed a positive connotation.

134 Kaschewsky, Tsering, *Burg von Sumpa*, vol. 2, 129a l. 6-129b l. 2: *de nas mdung 'dren* [recte '*gran*] *byas / mtha' ma gri kha 'dren* [recte '*gran*] *kyang dpa' kha mnyam pa lta bu'i ngang der g.yu lha'i gri shub[s] nang du bcug nas //* (Then, they competed with lances, and finally with swords but, since their heroic power was relatively equal, Yulha inserted his sword into its sheath).

135 See Edgerton, *Buddhist Hybrid*, 165. *ka na ya*, Sanskrit *kanaya* or *kaṇaya*.

136 For the use of spears with a rope, called *thag mdung*, see Norbu, Turnball, *Tibet*, 73.

137 For this reference of Tsongkhapa, see Tibetan Cultural Printing Press, vol. 11, 33, l. 2: *ka na ya ni mdung phyed pa ste* [...] *mdung thung la thag pa btags yod pa mdung gsor nas 'phangs te / thag pa nas chur* [recte *tshur*] *'then pa gcig yod pa //*. With the same technique, the Tibetan monk warriors (*ldab ldob*) used a key and a type of knife with a string or a long leather handle, see Goldstein, "LDAB LDOB", 128.

138 See Ishihama, Fukuda, *Mahāvvyutpatti*, 289, no. 6058.

The Nakartse monastery (Sna dkar rtse) displays a lance in its temple for protective deities (*mgon khang*) that is dedicated to the guardian deity of the Sakya School, called the “Protector of the tent” (Gur gyi mgon). The weapon is famous for having killed thirteen enemies of Buddhism.¹³⁹ Here, it is turned into an object of veneration and “is said to bestow blessings”. This example shows the ambiguous attitude towards weapons in Buddhist contexts since many weapons are preserved in temples for protective deities.¹⁴⁰

3.6 Terms for Swords

In Asia, the Middle East and Europe, the sword has been the primary cutting and thrusting weapon of war since ancient times, and its shapes are manifold. The weapon is generally made of metal, and consists of a hilt, cross-guard and blade, which can be either straight or curved. In Tibet, as in other regions, the blade may be single, double-edged or even blunt. The blade’s tip may be pointed, edged, oblique, or rounded. This type of *mêlée* weapon includes also the curved sword or sabre, short sword and dagger.¹⁴¹

So far, only a few Tibetan sources dealing with the classification of swords have been introduced in Tibetan studies.¹⁴² These texts deal with topics related to objects of material culture, that is the manufacture of religious objects such as sculptures, liturgical bells, etc., and secular objects, including the production of silk or porcelain, and, on occasion, even swords. The swords’ function and mode of production might have led to their absence in some of these texts. In Tibetan cultural areas, the manufacture of sculptures and bells was considered a religious service, providing merit to the artisan although the smith performed this work. Blacksmithing was ascribed a different value and the status of the blacksmith appears to be ambiguous. On the one hand, blacksmiths were socially stigmatised and seem to have belonged to a lower social class. Their work was considered

139 Wylie, *Geography of Tibet*, 19, ll. 13-14 and 74. Interestingly, the enemies of the doctrine were, here, followers of the Drikung School.

140 For a study of the *mgon khang* in Likir Monastery in Ladakh, for example, see Jamspal, “The Gonkhang, Temple of the Guardian Deities”.

141 For variations of sword, sabre and dagger, see Boeheim, *Waffenkunde*, 230-304; for a definition of a sword, see the OED. For descriptions and photographs of swords found in Tibet, see La Rocca, *Warriors of the Himalayas*, 146-73; for a depiction of a copper alloy dagger found in a tomb in Western Tibet, see Bellezza, *Besting the Best*, 206. The author states in fn. 27 that, “iron implements appeared in Xinjiang in the 10th to the 9th centuries BCE and became much more common in some regions, particularly around Tian Shan from the 8th century BCE”.

142 For the sources, see La Rocca, “The Connoisseurship of Swords”.

'black work' (*las nag*) because it required a high degree of physical exertion but was, nevertheless, poorly paid. Moreover, some of their activities conflicted with Buddhist doctrine, since they could produce tools for killing sentient beings. They contaminated fire (*thab grib*), insulted the respective goddess, and polluted themselves. Since we know that the smiths' status in eastern Tibet was better than in areas close to Indian borders,¹⁴³ we may infer that Indian concepts such as the Indian class system or Buddhist theories led to a degradation of the profession's social standing. On the other hand, smithery was important in warfare and the forging of a good sword blade required a high level of metallurgy and forging skills. Therefore, the blacksmith, who forged weapons, probably had a higher standing. Be that as it may, the Buddhist theories of killing, in some way, might have contributed to the rarity of passages dealing with armoury in written compositions.¹⁴⁴

According to an early fifteenth century compendium on material culture, Tibetans apply their own distinct categorisation of swords, which focuses on the blade, since this is the part that determines the weapon's efficaciousness. Two further works adopted this classification, which distinguishes five sword types: *zhang ma*, *sog po*, *hu phed* (*hu bed*, *hu ved*, *hu bde*) *dgu zi* (*gu zi*), and *'ja' ral*, together with their further subcategories.¹⁴⁵ The interpretation of these terms remains unclear. Like other classifications, they might denote regions, peoples, clans, or material. The authors assign the origin of the sword to different time periods, either to the period of transition from myth to history, namely during the times of Drigum Tsenpo (Gri gum btsan po), or further back, in mythical times. The story that dates the invention of the sword to mythical times leads also to Central Asia, specifically Mongolia. A Mongol smith is said to have forged the first sword out of iron. He had discovered this substance, which was the remnant

143 Iron working skills were concentrated in the Derge area, see Clarke, "History of Ironworking in Tibet", 25.

144 For more details on the evaluation of handicraft, and particularly the smith (*mgar ba*) in traditional Tibetan society, see Ronge, *Handwerkertum*, 30-44. For the Bon and Buddhist myths related to the smith, their cultural functions, and social status, see Hummel, "Schmied in Tibet". Although the etymology of names is not always straightforward, I would like to recall here the famous minister, Gar Tongtsen (Mgar stong btsan), whose name could point to a family of smiths who apparently attained political power. He was Tibet's regent until the reign of Songtsen Gampo (Srong btsan sgam po), and his whole family played a crucial role in the consolidation of the first Tibetan empire; see, for example, Shakabpa, *Tibet*, 25-31. I wish to thank Veronika Ronge and Lobsang Yongdan for discussing this matter with me.

145 For the sources, their discussion and translation, see La Rocca, "The Connoisseurship of Swords", 2014 and for a terminological list of all of these sword types, see La Rocca, *Warriors of the Himalayas*, 264.

of the fights between the demigods and demons.¹⁴⁶ Another clue indicating this region is the name of one of the principal sword types: ‘Mongol’ (*sog po*). A similar story appears in the *Ziji* – we might assume that these stories reflect historical truth – which also provides a sword classification following the sword’s usage and function, indicating a focus on the blade.

3.6.1 The Sword (*ral gyi* and *ral gri*)

In this paragraph, I present a selection of Tibetan sources that refer to this close-combat weapon’s shape, use and accessories, such as the scabbard. The generic and most common term for a sword is *ral gri*. According to Jäschke, *ral gri* refers also to a “rapier and other thrust blades”.¹⁴⁷ The ancient Tibetan sources show that the compound *ral gyi* is an early variant of *ral gri*,¹⁴⁸ whereas the monosyllabic term *gri* generally denotes a smaller cutting instrument: a knife or dagger. However, throughout the centuries, Tibetan literature uses also *gri* as an abbreviation for *ral gri*, occasionally also to designate a sword.

Both variants, *ral gyi* and *ral gri*, occur in the early texts. The old Dunhuang documents, such as PT 1287, refer to *ral gyi*. Here, the weapon is among the gifts that a ruler called Waeyitsap (Dba’s dbyi tshab) presents as “support for the body” (*sku rten*). Other gifts are armaments, such as lamellar armour (*khra b bse*) and a sheath, here called *mdor cod*, made of white copper (*dong prom*).¹⁴⁹ Like other weapons, a sword called *ral gyi* together with a lance occur in PT 1287 as divine instruments that are endowed with the magical powers required by warriors to go into battle.¹⁵⁰

The *Gesar Epic*’s section *Conquest of the Fort of Sumpa* uses broadly the monosyllable *gri* to indicate a sword. Through stories of armed battles and wars, the tool here called *gri* apparently denotes a larg-

146 La Rocca, “The Connoisseurship of Swords”, 92.

147 See Jäschke, *Tibetan-English Dictionary*, 525. Geshe Chödrak, *Brda dag*, 499, gives *dpa’ dam* as synonym for *ral gri*.

148 For *ral gyi*, see Schmidt, *Wörterbuch*, 541. Another variant is *ral kyu*, see Tenzin, Namdak Nyima, Rabsal, *Lexicon of Zhangzhung and Bonpo Terms*, 246.

149 Spanien, Imaeda, *Documents Tibétains*, vol. 2, pl. 566, ll. 262-3, *sku rten du khra b bse’ sna bcu dang / ldong prom gyi ral gyi mdor cod / gnyis gsol to //*. For the interpretation of *mdor cod*, see Bialek, *Compounds and Compounding*, vol. 2, 201-2.

150 Spanien, Imaeda, *Documents Tibétains*, vol. 2, pl. 557, ll. 10-12: *mdung rang ’debs dang / ral gyi rang gcod dang / khra b rang gyon dang / phub rang bzur la stsogs pa / ’phrul gyi dkor ched po mnga’ ba ’i rnams bdag la stsal na phod //* (If you grant me divine tools, such as the lance that throws by itself, the sword that cuts by itself, the armour that is donned by itself, the shield that protects by itself, that is to say, the great magical tools you possess, I will have the courage [to fight]).

er cutting instrument, like a sword to fight with (*gri brgyab*).¹⁵¹ rather than simply a utilitarian knife. The text also provides some information on the material. Here, we learn that the *gri* can be made of bronze (*li*), in which case it is called *li gri*. The black sword (*gri nag*), instead, is probably made of a different material.¹⁵² The text exemplifies the effectiveness and sharpness of swords when it states that their stroke will not only cause wounds and cut clothing, but also shreds armour (*khra*).¹⁵³ A single sword stroke (*gri g.yug*) to the enemy's head can be fatal whereas the use of the sword's blunt edge (*gri ltag*) prevents one from killing.¹⁵⁴

The material of the sword was an important issue which is also addressed in texts translated from Sanskrit. Haribhaṭṭa provides some information in his *Jātakamāla* on one of the Buddha's former lives where he uses a poetic name to refer to a sword:

A skilful craftsman manufactures 'Essence of Glory' (*dpal gyi snying po*) [Sanskrit *śrīgarbha*] [i.e. a sword]¹⁵⁵ in the colour of sapphire resembling the cloudless sky. However, it is not made of metal that is impure; only bells are made of this.¹⁵⁶

It is noticeable that the sword is made of a better material than bells used as religious symbols or religious objects. One might ask why this text uses a poetic name for weapons, which like a secret name conceals the tool, including its manufacturing process. Did the writer of this legendary story on the Buddha's previous birth consider it inappropriate to record the direct designation of a tool that was used for violent acts, and therefore conceal it under the designation 'Essence of Glory'?

151 Kaschewsky, Tsering, *Burg von Sumpa*, vol. 2, 79b ll. 4-5: *dung skyong gi nub phyogs nas gri brgyab nas sum dmag 'phru ser can drug cu tсам tshags [recte chags] nyil du gtang byung ba'i //* (Dungkyong fought in the west with his sword and slaughtered about 60 soldiers of the Sumpa, wearing helmets with yellow plumes).

152 For *li gri*, see Kaschewsky, Tsering, *Burg von Sumpa*, vol. 2, 116a ll. 4-5; for *gri nag*, see 42a ll. 3-4.

153 Kaschewsky, Tsering, *Burg von Sumpa*, vol. 2, 99b ll. 2-4.

154 Kaschewsky, Tsering, *Burg von Sumpa*, vol. 2, 102a ll. 3-4: *khos gri g.yug them gcig la lha khri'i dbu la phog nas klad pa skya tha le byas ste //* (With a single sword stroke, he hit Lhatri on his head and his brain was turned shimmering grey [i.e. it came out of the skull]); vol. 2, 167b ll. 2-3: *mi chung skrag nas gri ltag zhig brgyab pa'i mdzo'i rna ltag la phog nas //* (Since Michung was frightened, he hit the *dzo* above the ears with the blunt edge of his sword).

155 Zhang, *Tshig mdzod*, 1628, defines *dpal gyi snying po* as a "(*mngon*) *ral gri*".

156 Hahn, Klaus, *Mṛgajātaka*, 61, ll. 5-8: *bzo bo mkhas pas kyang ni sprin bral nam mkha' dang ni in dra ni la'i mdog 'dra ba'i / dpal gyi snying po byed de dri mas rtsub pa'i driil bur bcas [recte byas] pa'i lcags kyis ma yin no //*. The text translates *lcags* for Sanskrit *ayas* that is 'brass'.

The naming of swords is a common characteristic of the *Gesar Epic*. A certain Phungdü (Phung bdud) launches an attack by pulling his sword, called ‘Throne-cutting blue turquoise’ (Khri chod g.yu sngon) out of its sheath.¹⁵⁷ Another passage in the *Gesar Epic* compares the hilt (*thu ru*) with the part of the scale where the beams are tied together.¹⁵⁸ The more common term for hilt is *gri mgo*; literally, ‘the head of the sword’. This term and its labelling with a personal name emphasise the significance of this sword part,¹⁵⁹ as, to be used effectively, the hilt should fit perfectly into the warrior’s hand.

The challenge of determining with certainty whether or not *gri* refers to a sword or knife arises also in a far later source: the early eighteenth century decree issued by the Bhutanese leader, Drukpa Rinpoche (‘Brug pa rin po che). Here, the leader specifies fines for various offenses, including for thieves, murder, and fights. In this context, he mentions “drawing a sword” or “drawing a knife” (*gri ’bal*) as a punishable offense. Drawing a blade was considered an offence as it implied the adoption of an aggressive stance. Such instances must have occurred relatively frequently as, otherwise, legislation would have been unnecessary.¹⁶⁰

Before examining the *ral gri* more closely, I would like to point out that in the *Vinayavastu* of the Buddhist canon, the *Kanjur* (*Bka’ ’gyur*), the sword (*ral gri*) is assigned to a group of three weapons (*mtshon*), i.e. *ral gri*, *spu gri*, and *chu gri*. The text explains these as follows:

‘Giving him weapons’ means: a sword (*ral gri*), a very sharp knife (*spu gri*) or a curved knife (*chu gri*).¹⁶¹

This, and other quotes in the Munich Dictionary’s database sources are unrelated to military conflicts. The two knives called *spu gri* and

157 Kaschewsky, Tsering, *Burg von Sumpa*, vol. 2, 42a ll. 3-4: *ci cha med par phung bdud gyi gri nag khri chod [g].yu sngon de blug nas //* (Unexpectedly, Phungdü ran directly towards them by pulling his black sword ‘Throne cutting blue turquoise’ out of its sheath). This motif is not unique in a Tibetan cultural context but occurs also elsewhere, such as King Arthur’s sword called Excalibur; see Beer, *Tibetan Symbols and Motifs*, 163-4.

158 Stein, *L’épopée tibétaine de Gesar*, 340, ll. 12-3: *thu ru yag gi ’dra ma la / rgya thur spor ring gshibs ’dra yod //*.

159 Kaschewsky, Tsering, *Burg von Sumpa*, vol. 2, 74a ll. 6: *ral gri stong chod me ’bar de’i gri mgo ’phur [recte khur] nas //* (Holding the hilt of his sword [called] Tongchö Me-bar). For findings of Tibetan hilts in the tombs of the Yarlung or *Spu rgyal* Empire kings, see Heller, “Tibetan Inscriptions”, 260.

160 Aris, *History of Bhutan*, 160, ll. 9-11: *gri ’bal la gri chad / ’thab na ’thab chad //* (For drawing a knife, ‘knife penalty’, for fighting ‘fight penalty’).

161 *Bhikṣunīvinayavhibanga* (*Dge slong ma’i ’dul ba rnam par ’byed pa*), *Sde dge*, vol. 5, ‘Dul ba, ta, 53b ll. 4-5: *de la mtshon byin nam zhes bya ba ni ral gri’am / spu gri’am / chu gri’o //*.

chu gri are weapons used in single combat whereas the real military weapon in this threesome is *ral gri*. The term *spu gri* denotes a very sharp cutting instrument. As its size is apparently fluid, this term can refer to a razor but also to a sword or sickle.¹⁶² A precise translation of *chu gri* is difficult as well. It is often understood as a curved knife with a pointed tip and might have an enlarged blade in its middle. Both sides of the blade can be sharp. Dungkar (Dung dkar), in his dictionary, explains it as a flexible, unbreakable knife made of three different types of metal.¹⁶³ Therefore, *chu gri* could also denote any curved knife or a dagger, as this weapon is occasionally curved.¹⁶⁴

Let us now examine the sword as one of the traditional weapons employed in warfare. The *Vinayavastu* of the *Kanjur* designates it as one of the five insignia of royalty (*rgyal po'i mtshan ma lnga po*).¹⁶⁵ Its translation into Tibetan might have been one of the ways in which this concept entered Tibetan thought, although possibly not the only one. The concept of the sword being among the insignia of the Tibetan leader, the Tsenpo (*btsan po*), is likely to have arisen with the formation of separate dominions in the Tibetan Empire. The Tsenpo with a sword is a well-known motif in Tibetan myths and literature, where we read how Drigum Tsenpo descended from heaven. By brandishing the sword above his head, he inadvertently cut off the cord that had allowed his body's vital force or 'soul' to re-ascend to heaven after his death. This incident forced the Tsenpo to remain on earth from then onwards. When Jonang Tāranātha (1575-1634) tells this story, he refers specifically to a sword of the *gu zi* type, a heavy weapon with a blade patterned "like the Milky Way", said to originate in the times of Drigum Tsenpo.¹⁶⁶ This might be one of the factors that turned the sword into the symbol of kingship, although this attribute of leadership is not reserved for kings, but served minis-

¹⁶² Personal communication with Jampa Panglung, February 2020.

¹⁶³ See Dung dkar, *Tshig mdzod*, 819. Lin, *Systematisierung von gTo-Ritualen*, 176, footnote 999, describes *chu gri* as a short-crooked knife with a rippled blade. According to Bellezza, *Besting the Best*, 160, *chu gri* denotes a "scimitar", whereas the *ral gri* is "point shaped like the top of a frog's head; i.e. spatulate", and the *spu gri* is "light and shaped like a feather".

¹⁶⁴ See, for example, the drawing of a Turkish dagger in Boenheim, *Waffenkunde*, 298. Another term for a dagger or curved knife is *gri gug*; see Maurer, *Geomantie*, 144, ll. 25-6: *mda' dar dbu rgyan gri gug //*.

¹⁶⁵ The five insignia of a king are the turban, parasol, sword, yak tail with a precious handle, and magnificent shoes. See *Vinayavastu* (*'Dul ba gzhi*) of the *Kanjur*; see *Sde dge*, vol. 1, 'Dul ba, nga 70b ll. 5-6: *rgyal po'i mtshan ma lnga po ze'u kha dang / gdugs dang / ral gri dang nor bu'i rnga yab dang / lham khra bo rnam //*.

¹⁶⁶ Lhag pa tshe ring, *Myang yul*, 92, ll. 10-11: *rang gi ral gri gu zi klad la bskor bas / lha'i smu thag dang rkyang thag bcad pa //*. On the sword as an attribute of the Tsenpo, see also Heller, "Armor and Weapons", 36. For the *gu zi* or *dgu zi* sword, see La Rocca, "The Connoisseurship of Swords", 91-2, and 100-1.

ters and other leaders also as status symbols until modern times.¹⁶⁷

Swords occur also in the context of executions. This may be found in *The Prophecy of the Li Country*, where it is narrated that an executioner used a sword (*ral gri*) in an attempt to enforce the death penalty and kill the son of King Vijaya Jaya, prince Dondrö ('Don 'dros), who had offered his life to rescue a Chinese minister. An execution suggests the use of a large tool in order to maintain a considerable distance between the convict and executor, since the use of a small weapon is evidently impractical.¹⁶⁸ Tāranātha reports a similar incident, where an executioner killed someone with a sword.¹⁶⁹

Apart from its use in warfare, the sword appears as a tool in other contexts, such as Buddhist teachings, rituals, and divination. Together with mirrors, jewels, and daggers, it serves, for example, as a ritual item in a *maṅḍala*.¹⁷⁰ Furthermore, Buddhist texts can give the sword a positive meaning, such as the 'sword of wisdom' that helps a person to cut off or free the self from the net of negative emotions and defilements.¹⁷¹

3.6.2 Specific Terms in Bon Sources

Tibetan autochthonous literature, particularly Bon literature, contains several terms denoting large cutting or stabbing instruments. Texts such as the ritual manual *Sigyel* and Shenrap Miwo's biography *Ziji*, for

167 Kaschewsky, Tsering, *Burg von Sumpa*, vol. 2, 74a ll. 5-6: *sum blon [...] ral gri stong chod me 'bar de'i gri mgo 'phur [recte khur] nas //* (The minister of Sum pa held the hilt of his sword, Tongchö Mebar). Gampo Tashi Andrugtsang, the leader of the Tibetan Freedom Movement, appears in his book in traditional Khampa dress, wearing a sword on the front of his stomach; see Andrugtsang, *Four Rivers*, 57.

168 Emmerick, *Khotan*, 40-1: *gshed mas rgyal bu la ral gris btap pa na bcad 'phro nas 'o ma byung ste / ma gum nas rgya rje la sogs pa ngo mtshar rmad du gyur te //* (When the executioner struck the prince with his sword, milk flowed from the wound. He did not die, and the Chinese king and others were greatly amazed).

169 Schiefner, *Tāranātha*, 23, ll. 18-19: *gshed mas ral gri brdeg par brtsams pa na //* (When the executioner wanted to slay him with the sword); and 24, l. 7: *der gshed ma des ral gri thogs ste rgyugs nas byung ba na //* (Then, by holding his sword, the executioner lunged at him).

170 *Bdud rtsi bum pa'i lung (Instruction of the Nectar Vase)*, of the Kanjur, *Sde dge*, Rnying rgyud, 216b ll. 6-7: *me long bzhi dang ratna bzhi / ral gri bzhi dang phur pa brgyad / dkyil 'khor 'khor bar bskor te gzhaq //* (Four mirrors, four jewels, four swords, and eight daggers shall be placed in the *maṅḍala* circle). In other sources, such as geomantic texts, the sword is generally assigned to men; see Maurer, *Tibetische Geomantie*, 131, and for the German translation, 221. The sword is also one of the major requisites of the Tibetan State Oracle, and other oracles, see, for example, Nebesky-Wojkowitz, *Oracles and Demons*, 420, 434.

171 The *Golden Light Sūtra* refers to the "sword of wisdom" (*ye shes ral gri*), see Nobel, *Goldglanz-Sūtra*, 45, l. 6: *ye shes ral gris nyon mongs rgya mo grol //*.

example, use the term *tsa kra* for a spear or sword.¹⁷² The word's origin is unknown although, phonetically, it may remind the reader of the Sanskrit *cakra*, the wheel. The *Sigyel* reveals two of the tool's characteristics: it is powerful and decorated with an engraved mantra.¹⁷³ In a story of the *Ziji*, an army of warrior gods (*sgra bla'i dmag*) holding a horse race uses the tool called *tsa kra mdung*. Since it is interpreted as a compound of synonyms, it points quite clearly to spears.¹⁷⁴

Moreover, the *Ziji* classifies weapons (*mtshon*) into specific groups or categories, such as the weapons of the warrior gods called Ye¹⁷⁵ (*ye'i mtshon*). These deities use three types of weapons, called *ya tsa*,¹⁷⁶ *skya' gam*,¹⁷⁷ and *shang lang*.¹⁷⁸ Their functional description implies edged weapons, such as swords and daggers. By assessing their cutting quality, the source differentiates three types of each. The following quote presents the three types of *skya' gam*, a double edged-sword:

There are three types of *skya' gam* swords:
the *skya' gam* that hits without trace,
the *skya' gam* that cuts a bird's feather in the wind and
the erected *skya' gam* that defeats the enemy.¹⁷⁹

It is worth noting here that an early sixteenth century work refers to subtypes of the so-called '*ja' ral* sword, one of which is called *skya phra ba*, which could be related to *skya* in the above.¹⁸⁰

172 Martin, "Zhangzhung", 64, derives *gra* or *gri* denoting the knife from *tsa kra*.

173 *Srid rgyal*, 13a l. 3: *tsa kra ngar ldan byang bu sngags kyi brgyan //*. A common meaning of the term *ngar* is 'sharp'. The mantras inscribed on a sword increase its power. For a discussion of the term *ngar*, and its interpretation as 'strength' or 'power' see Karmay, *Arrow and Spindle*, 341, footnote 14.

174 Tibetan Bonpo Monastic Centre, *Gzi brjid*, vol. 2, 64, l. 2: *tsa kra mdung 'debs ljibs se ljibs //* (The spear that throws itself). The expression *ljibs se ljibs* is onomatopoeic for the swinging of a spear.

175 The term *ye* denotes "a class of non-humans or gods that is beneficial, helpful, useful", see Tenzin, Namdak Nyima, Rabsal, *A Lexicon of Zhangzhung and Bonpo Terms*, 235.

176 See Tenzin, Namdak Nyima, Rabsal, *A Lexicon of Zhangzhung and Bonpo Terms*, 231, here labelled as *zhang zhung* term for sword (*ral gri*), and a lance or spear (*mdung*). According to Bellezza, *Besting the Best*, 160, the *ya tsa* sword has a "jewel-shaped point".

177 Tenzin, Namdak Nyima, Rabsal, *A Lexicon of Zhangzhung and Bonpo Terms*, 15.

178 Tenzin, Namdak Nyima, Rabsal, *A Lexicon of Zhangzhung and Bonpo Terms*, 260, here described as "a sword with a broad blade".

179 Tibetan Bonpo Monastic Centre, *Gzi brjid*, vol. 2, 352, ll. 6-353, l. 3: *skya 'gam rigs la rnam pa gsum / skya 'gam btab pa rjes med dang / skya 'gam bya sgro rtung chod dang / skya 'gam phyar ba dgra 'dul gsum //*. Further studies of the *Ziji* might bring further insights into the weapon terminology.

180 See La Rocca, *Warriors of the Himalayas*, 264.

Occasionally, the *Ziji* connects a specific warrior god with a particular weapon. The warrior god of the razor-sharp sword, for example, is Drama Welgi Ngarsochen (Dra ma dbal gyi ngar so can) or “the one who has the energy of the experienced blade”.¹⁸¹

3.7 Battleaxes (*dgra sta*), Hammers (*the'u*) and Iron Hooks (*lcags kyu*)

Three further weapons for armed fights and military attacks are battle-axes, hammers and iron hooks, which occur rarely in the literature. Both battle-axes and hammers date back to prehistoric times and had stone heads, later replaced with iron. In Europe, they were originally the weapons of foot soldiers and, from the mid-fourteenth century onwards, they were used by cavalry.¹⁸² All over Central Asia, India and China, they were used as well but archaeological finds are apparently rare.¹⁸³ They resembled the tools of laymen and workers, i.e. carpenters and woodcutters utilised these tools in their daily life. At the same time, they were also ritual objects or attributes of the guardian deities.¹⁸⁴ During wartime, they served as weapons and were common medieval offensive weapons,¹⁸⁵ also known in Tibet.

Tibetans call the battleaxe *dgra sta*, literally the ‘axe against the enemy’ or simply ‘weapon’. The term entered already the *Mahāvvyutpatti* where the translators chose *dgra sta* to render the Sanskrit *paraśuḥ*.¹⁸⁶ Both, Dagya and Geshe Chödrak explain *dgra sta*¹⁸⁷ in their dictionaries as a tool resembling an axe.¹⁸⁸ In our database, the references for the term *dgra sta* occur mostly in Buddhist literature translated from Sanskrit. The only autochthonous source available here is

181 Tibetan Bonpo Monastic Centre, *Gzi brjid*, vol. 2, 63, ll. 1-2: *ya tsa dbal gyi sgra bla de / dra ma dbal gyi ngar so can //*.

182 On the use of battleaxes in Europe and connection with halberds, see Boenheim, *Waffenkunde*, 363-79; for the definition of ‘battleax’, see the OED.

183 For the axes’ material, shape, size, manufacture, and an illustration, see La Rocca, “Recent Acquisitions... Part 2”, 1-2. Battleaxes were used in Central Asia and India, see Rubinson, “Tillya Tepe”, 51; for a depiction of a Scythian battleaxe; see the catalogue on the exhibition *Gold der Skythen*, 224. The *Rāmāyaṇa* mentions also axes (*paraśu*) and war hammers (*mudgara*), see Goldman, Goldman, van Nooten, *Rāmāyaṇa*, 1559-60; see also Losch, “Abriß der Waffenkunde”, 213.

184 See La Rocca, *Warriors of the Himalayas*, 185.

185 For a survey of martels and poleaxes, see Boenheim, *Waffenkunde*, 363-79.

186 Ishihama, Fukuda, *Mahāvvyutpatti*, 289, no. 6065.

187 Geshe Chödrak, *Brda dag*, 141: *sta re lta bu phyag mtshon zhig //*; Dagya, *Tshig mdzod*, 129: *sta gri lta bu'i phyag cha zhig //*.

188 Both terms, *sta re* and *sta gri*, denote an axe; Geshe Chödrak, *Brda dag*, 352, explains *sta gri* and *sta re* as *shing gcod byed sta re la'ang //*. Dagya, *Tshig mdzod*, 309, defines *sta gri* as *shing gcod byed* and declares *sta re* a synonym (*sta gri dang don 'dra*).

the Bon source *Zermig* that tells a mythical story of a fight. Shenrap Miwo, the founder of the Bon religion, supported the mythical King Kongtse (Kong tse 'phrul gyi rgyal),¹⁸⁹ who attempted to defeat a *sin-bu* demon. Shenrap manifested himself as four deities with eighteen arms, each of which occupied one of the four directions. In one of his arms, he held an axe.¹⁹⁰ Although this story is a myth, it points to the use of axes that were known in the milieu where the myth was created. In another single combat, Shenrap Miwo uses a bronze and an iron hammer (*the'u*) to defeat a person called Tobudo (Gto bu do), who had mustered soldiers (*dmag bsogs*) to attack and kill Shenrap.¹⁹¹

Another weapon or tool of warfare is the iron hook (*lcags kyu*). According to the sources, the weapon was used in early Tibet. In the Indian cultural context, the elephant rider uses this hook to goad or direct his animal.¹⁹² However, this might not apply to the Bon source *Ziji* which assigns the hook to the warrior gods who use it during warfare. By ascribing it the power to grasp a person by itself, it is, like other weapons, endowed with magical power. The warrior gods gather hooks and lassos to arrange them when they are preparing for war.¹⁹³

3.8 The Dagger and the Stake

The ritual weapon *per se* is a dagger called *phur ba* (or *pa*) or *phur bu*, a term that also denotes utensils such as pegs, pins, or nails and actual weapons or instruments of torture; for example, pikes and stakes. The shape and material of a dagger depend on its use. As a ritual instrument, it usually has a three-edged blade and is made of iron or wood. Tibetan texts provide some information on the dagger's material, commonly various kinds of wood such as burberry (*skyer phur*), walnut (*star ga'i phur pa*), or acacia (*seng phur*). Given the various

189 On Kongtse, see Lin, "Image of Confucius".

190 Tenzin Namdak, *Gzer mig*, 775, l. 6: *gcod pa'i dgra sta //*. Further weapons are the sword (*ral gri*) and various types of knife, such as *chu gri*, *spu gri*, *thu lu*, *ya lad*, and so on.

191 Tenzin Namdak, *Gzer mig*, 99, l. 4: *chu gri mkhar [recte 'khar] the'u dang lcags the'u //* (A curved dagger, a bronze hammer, and an iron hammer). The hammer recalls demons called *the'u* or *the'u rang*, an ancient class of evil demons but related to the Tibetan *tsempo*, since Nyatri Tsenpo (Nya 'khri btsan po), the "Neck throne King", is said to be "a descendant of one of the nine *the'u rang*"; see Nebesky-Wojkowitz, *Oracles and Demons*, 283.

192 Beer, *Tibetan Symbols and Motifs*, 302, refers to the Indian elephant goad as an iron hook, in Sanskrit called *anukṣa*.

193 In Tibetan Bonpo Monastic Centre, *Gzi brjid*, vol. 2, 63, l. 4, and 66, l. 1: *lcags kyu rang 'dzin 'di la 'khor //* (The iron hook which grasps by itself). And 64, ll. 1-2: *dgu khri dgu 'bum sgra bla'i dmag [...]* *lcags kyu zhags bsdog wangs se wang //* (The army of the 990,000 warrior gods arranges their iron hooks and lassos).

weapons that the ritual specialist uses, we might assume that the dagger is based on the prototype of a real weapon.¹⁹⁴ Since it is difficult to distinguish between daggers and short swords, their range of use is likely to have been similar.¹⁹⁵ Stakes appear not to have been used directly to defeat an enemy in military combat, but could be used as tools for the execution of an enemy. An incident of this kind is reported in the following passage from the *Religious History of Khotan*:

They fettered him with iron fetters, tied him to an iron pike, and burned him like one burns a sparrow in a fire.¹⁹⁶

Several autochthonous and translated texts, such as the *Mirror of Royal Genealogies*, the *Flower Garland*, and the *Biography of Padmasambhava*, report impalement as a royally decreed punishment. However, the most frequent mentions of *phur ba* occur during rituals where the ritual specialist imagines the destruction of evil forces. His action with the dagger is identical to its real use, here it is based on the mental imagination: as a stabbing instrument to subdue terrifying deities,¹⁹⁷ as a requisite attribute of a goddess, or during a *Gto* ritual.

4 Protective Gear

4.1 Armour and Shield

In the final section we shall examine the different kinds of protective gear, including armour, shields, and helmets. Tibetan culture knows a broad variety of armour which was made of metal, such as iron and bronze, leather or rawhide, and textiles, occasionally silk. In particular, armour made of lamellae (*byang bu*),¹⁹⁸ or lamellar armour, spread from East Asia across Europe. Less common, apparently, were coats of mail or mail shirts.¹⁹⁹

¹⁹⁴ For a study on daggers as ritual weapons, see Grimaud, Grimaud, *Les dagues rituelles*.

¹⁹⁵ For a depiction and description of a Central or West Asian dagger, see La Rocca, "Recent Acquisitions... Part 2", 2-3.

¹⁹⁶ Emmerick, *Khotan*, 89. ll. 94-95: *lcags thag gis bcings nas / lcags kyi phur pa la dkriste [recte dkris te] / ce sha btso ba bzhin du zhugs la bsregs nas //*.

¹⁹⁷ The passage occurs in *Bdud rtsi bum pa'i lung (Amṛtakalaśasiddhi)* of the *Kanjur*, *Sde dge*, Rnying rgyud, ga 216b l.1: *rang byung khro bo chen po bcus / phyogs mtshams phur pas btāb nas ni / gnas dang sa gzhi dag par sbyang //*.

¹⁹⁸ At this stage, there is no reference for *byang bu* as a lamellar armour in the Munich's Dictionary database.

¹⁹⁹ For detailed descriptions and depictions, see La Rocca, *Warriors of the Himalayas*, 51-66, 124-7, 144-5. Mongol armour is depicted in the catalogue on an exhibition

The terms for protective apparatus, such as armour, are numerous: *khrab ma*,²⁰⁰ *khrab bse*, *a khrab*, *go khrab*, *go cha*, and *dgra cha*. Jäschke translates *khrab* as a “shield, buckler, coat of mail, scales”. He points out that the term’s original meaning was the “scale(s) of a fish”, and secondly a “coat of mail”. The origin of the name appears clear as the lamellae of Tibetan armour, as a covering for the body, resemble the scales of a fish.²⁰¹ Tibetan military culture knows also single armoured pieces, such as protection for the arms, forearms, shoulders, knees, and trunk. Specific elements, such as ‘mirrors’ and belts, can complement the outfit. The ‘mirrors’ are worn above the coat of mail and provide additional protection for breast, back and flanks. This quadruple protection was also used in Persia and India, whereas the European gear focused predominantly on the protection of the chest.²⁰² Other military requisites are the shield (*phub* or *phub mo*), usually round and made of cane or leather with pieces of iron and brass,²⁰³ and the helmet to protect the head, called *rmog* and also by its honorific *dbu rmog*.

The compounds derived from *khrab* denote more specific types of armour, depending on its material or shape. The *Mahāvvyutpatti* gives Sanskrit *paṭṭikāsamāha* as a synonym for *khrab*.²⁰⁴ Tibetan dictionaries refer to some of these terms, together with the weapon’s material. Jäschke and Schmidt, for example, both refer to *go khrab* as a “coat of mail with a helmet, armour”.²⁰⁵ According to the dictionaries of Daggyab and Geshe Chödrak, armour (*go khrab*) was commonly made of metal, but could also be of other material.²⁰⁶ As we have already seen, their explanation of *go cha* is similar, but Daggyab mentions explicitly the helmet: armour, the helmet, and other

on Chinggis Khan, see Kunst- und Ausstellungshalle der Bundesrepublik Deutschland, *Dschingis Khan und seine Erben*, 99-100. For the spread of various types of suits of armour, in Europe, see Boeheim, *Waffenkunde*, 120-68; for details of the mail shirts, see 148.

200 See Jäschke, *Tibetan-English Dictionary*, 49. His information is apparently based on Schmidt, *Wörterbuch*, 54: “Harnisch, Panzer, Schild, Schuppen”.

201 La Rocca, *Warriors of the Himalayas*, 51-67. For lamellar armour on excavated coffin panels, see Heller, “Tibetan Inscriptions”, 260.

202 For depictions and descriptions, see La Rocca, *Warriors of the Himalayas*, 126-43, and Boeheim, *Waffenkunde*, 104.

203 For depictions of shields, see La Rocca, *Warriors of the Himalayas*, 92-5, and in this issue. For the great variety of shields in Europe made of various materials and of every shape, see Boeheim, *Waffenkunde*, 169-92.

204 Ishihama, Fukuda, *Mahāvvyutpatti*, 289, no. 6053. Sanskrit *paṭṭikā* denotes here a board, plate, or piece of cloth; see Monier-Williams, *Sanskrit-English*, under *paṭṭakā* 579.

205 See Schmidt, *Wörterbuch*, 71; Jäschke, *Tibetan-English Dictionary*, 70-1.

206 Daggyab, *Tshig mdzod*, 101: *lus skyob pa'i lcags sogz kyi go khrab //*.

military equipment.²⁰⁷ Since the *Mahāvvyutpatti* refers to *khraḥ*, we might consider it as old linguistic material, i.e. language that existed in the eighth century.²⁰⁸ The impact of Buddhist thought becomes obvious when the source that was written during the initial spread of Buddhism in Tibet (*snga dar*) states that, those who wore armour (*go cha*) were held in low regard, and considered disqualified to receive the dharma teachings.²⁰⁹

The early sources of the *Pelliot Tibétain* collection (PT 1287) report the body's protection during fighting:

As support for the body, he bestowed ten different lamellar armours (*khraḥ bse*) and two sheaths of white copper.²¹⁰

The syllable *bse* in the compound *bse khraḥ* is often referred to as a 'rhinoceros'. As rhinoceroses are of course not endemic in Tibet, the designation assimilates the hardness of tanned, processed leather to the mythical toughness of a rhino's skin.²¹¹ In fact, Tibetan *bse*, short for the compound *bse ko*, denotes tanned leather. Therefore, I follow Jäschke's interpretation of *bse khraḥ* as "a coat of mail made of leather".²¹² Leather made from the skin of yak and sheep, for example, rather than rhinoceroses, was used in Tibet, particularly if it was needed in large amounts to produce shields for the infantry.

As in the case of weapons, PT 1287 denotes specific kinds of armour as divine tools. Through their supernatural actions, they protect the warrior's body by operating as if by magic: the armour (*khraḥ*)

207 Dagyab, *Tshig mdzod*, 102: *khraḥ rmog sogs g.yul gyi cha lugs*; Geshe Chödrak, *Brda dag*, 118, defines *go cha* and *go khraḥ* as "iron cloth to protect the body" (*lus skyob lcags gos lta bu*).

208 For *go cha*, see the explanations in this article under § 2.2. The dictionary quotes another term that I had not encountered in the literature previously, *ya lad*, commonly used to indicate armour but also a helmet (*ya lad ni go cha spyi dang skabs thob kyis rmog gi ming la 'jug pa'ang yod*). See also Ishihama, Fukuda, *Mahāvvyutpatti*, 288, no. 6049, here for Sanskrit *kavaca*, which is, according to Monier-Williams, *Sanskrit-English*, 262: "armour, cuirass, coat of mail".

209 Ishihama, Fukuda, *Mahāvvyutpatti*, 402, no. 8563: *go cha gyon pa la chos mi bshad* for Sanskrit *na saṃnaddhāya dharmam deśayisyāmaḥ*.

210 Spanien, Imaeda, *Documents Tibétains*, vol. 2, pl. 566, ll. 262-3: *sku rten du khraḥ bse' sna bcu dang / ldong prom gyi ral gyi mdor cod / gnyis gsol to //*.

211 See, for example, the glossary of La Rocca, *Warriors of the Himalayas*, 271. For a further analysis, see Bialek, *Compounds and Compounding*, vol. 2, 356-65.

212 For the interpretation of *bse* as leather, see also Kōhalmi, "Abschnitt der Waffenbehälter", 204. Also, see Jäschke, *Tibetan-English Dictionary*, 593. For a depiction and description of leather lamellar armour made in Eastern Tibet, see La Rocca, *Warriors of the Himalayas*, 124-5, and in this issue. The tanner's social standing was low since he dealt indirectly with the death of sentient beings and committed inauspicious deeds or sins, called *sdig las*; see Ronge, *Handwerkertum*, 35.

puts itself onto the body, and the shield (*phub*) parries by itself.²¹³ The lamellar quality of armour might have inspired the description found in the *Gesar Epic*, where it is said to be made of shells.²¹⁴

A Bon myth assigns a divine or celestial origin to protective armour. A passage in the *Ziji* relates the myth of how an egg originated from the celestial womb through the power of the Gods. This egg unfolded as a series of tools to protect warriors: the shell served as armour, the caul as a protective weapon, the egg white turned into a potion to strengthen the hero, and the yolk into a stronghold in which to hide.²¹⁵ The same source emphasises the significance of body protection, which could be acquired through either common means or magic. An invocation can summon the warrior gods to draw near to military equipment, that is a helmet (*zhog zhun ke ru*) – which will be discussed below –, a blue chain armour (*'bum dbyel*), and a shield (*phub mo*) that spontaneously attach themselves to the body.²¹⁶ Only the term for the shield is Tibetan, the origin of the two other terms is unknown. They could – due to the close relation of Bon with Zhangzhung – originate in *zhang zhung* language but also in other Central Asian languages. In a subsequent passage, the *Ziji* refers to another term for armour, which is not documented elsewhere: *yo ling*.²¹⁷

Armour does not, however, guarantee the physical integrity of the warrior's body. The *Conquest of the Fort of Sumpa* shows that a hard blow, such as a strike with a sword, could destroy the body's protection and thus wound the body.

213 Spanien, Imaeda, *Documents Tibétains*, vol. 2, pl. 557, ll. 11-12: *khrab rang gyon dang / phub rang bzur la stsogs pa / 'phrul gyi dkor ched po mnga' ba 'i rnam s bdag la stsal na phod* // (The armour that dons itself, the shield that protects by itself; that is to say, the great magical tools [...]). In this context, a phrase in the *Flower Garland* is noteworthy as it points to the mindset regarding weapons in the early Tibetan kingdom: “When Songtsen Gampo erected the first Buddhist temples to pacify the country under the guidance of his wife, Wengcheng, he constructed a temple resembling a man wearing armour consisting of five pieces (*skyes zhub sna lnga gyon pa 'dra*) in the north of the Yarlung Empire”. See Uebach, *Nelpa Paṇḍita*, 92-3, fol. 8b7.

214 Stein, *L'épopée tibétaine de Gesar*, 220, l. 20: *dung khrab dkar mo lha bzang gcig* //.

215 Snellgrove, *Nine Ways of Bon*, 60, ll. 24-9: *sgong shun skyob pa'i go ru srid / bdar sha srung ba'i mtshon du srid / sgong chu dpa' ba'i ngar chur srid / sgong pri 'khra ba'i mkhar du srid* // The syllable *go* is understood as an abbreviation of *go cha*.

216 Tibetan Bonpo Monastic Centre, *Gzi brjid*, vol. 2, 65, l. 5-66, l. 1: *go cha sna dgu rten du 'dzugs / sgra bla gnyan po rten du bzugs / zhog zhun ke ru 'di la 'khor / 'bud* [recte *'bum*] *dbyel sngon mo 'di la 'khor* [...] *phub mo rang 'khyil 'di la 'khor* // (I set up nine types of armour as support. You mighty warrior gods, stay as support. Assemble here near the helmet, assemble here near the blue chain armour, assemble here near the shield that surrounds the body by itself) Tenzin, Namdak Nyima, Rabсал, *A Lexicon of Zhangzhung and Bonpo Terms*, 174 gives *'bub dbyel* for “armour or coat of mail”.

217 Tibetan Bonpo Monastic Centre, *Gzi brjid*, vol. 2, 66, ll. 4-5: *dgra la rbad na yo ling thobs* [recte *thogs*] // (When I fight the enemy, be [literally hold] my armour). Could *yo ling* be related to Mongolian *jolisu*, see Lessing, *Mongolian-English*, 959: “fish skin, fish-skin clothes”?

The blow [with the sword] hit the left shoulder of Zhelkar, and tattered his armour and clothes completely. Inside, quite a big wound appeared.²¹⁸

Tibetan literature preserved the term *khrab* or its compounds until at least the eighteenth century. The above-mentioned decree by Pholhané from 1727 reports on the clothes worn during warfare: they are a type of quilted jacket (*ol sbog*) which was made of textiles, leather, and iron, and armour (*a khrab*).²¹⁹ Like other terms in this document, the term for the quilted jacket is borrowed from the Mongolian term *olbuy* that denotes a “quilted jacket worn under armor”.²²⁰

The value and desirability of armour and protective clothes is illustrated by the fact that we possess records which show that these objects were bestowed on soldiers and warriors as an honour for their outstanding merit. The *Sources of the History of Bhutan* report on a kind of robe of honour: a sash (*dpa' dar*) and gown (*rgyab bkab*) were given to military heroes, particularly those who had killed one or two enemies.²²¹

4.2 The Helmet

The armour for the head is the helmet, called *rmog* or the honorific *dbu rmog*. It is mainly made of metal, i.e. iron and copper alloy, partly brass, silver and gold, and single parts can be made of leather and textiles. The bowl can consist of a single piece, as four or eight plates, or be a multi-plate helmet with 31 to 64 lames. The great variety of styles reflects influences from all over Asia, including Central Asia, Mongolia, China, and Korea. Helmets can be simple, or decorated with scripts, Buddhist symbols, or other decorative motives, known from other pieces of Tibetan Art. Most common were helmets with a bowl consisting of a single piece or eight plates.²²² The writ-

218 Kaschewsky, Tsering, *Burg von Sumpa*, vol. 2, 99b ll. 2-4: *rdeb ma de zhal dkar gyi dpung g.yon pa'i steng du phog nas khrab gos rnam khrig ger bcad nas nang du gri rmas che tsam byung ba'i //*.

219 Schuh, *Siegelkunde*, 84, ll. 34-6. For the German translation of the document, see 85 and 102. For Mongol textile armour, see the depiction in the catalogue by the Kunst- und Ausstellungshalle der Bundesrepublik Deutschland, *Dschingis Khan und seine Erben*, 100.

220 See Lessing, *Mongolian-English*, 608.

221 Aris, *History of Bhutan*, 144, ll. 29-146, l. 2: *mi gsad re gnyis mar dpa' dar rgyab bkab sogs gang 'os byed pa'i //* ([Soldiers] who have killed one or two persons should be treated according to their merits and given 'hero sashes' and gowns').

222 See La Rocca, *Warriors of the Himalayas*, 3-7, 68-91, and for helmets with lamellar armour, see 51-65.

ten sources in the database provide limited information about helmets' shapes or materials, but occasionally comment on their decoration. When discussing the helmet's material, the *Ziji* uses another term for helmet: the compound *zhog zhun* or *zhog zhun ke ru*.²²³ The term *zhun*, short for *zhun dkar*, might be understood as iron, and hereby indicates that metalwork was involved.²²⁴ In this context, the helmet forms part of the military equipment of particular warrior gods.²²⁵ The *Mirror of the Royal Genealogies* refers to a helmet decorated with precious stones, such as beryl and other gems.²²⁶

Nevertheless, the sources shed some light on the helmet's symbolism. In particular, ancient Tibetan sources, such as inscriptions on stone pillars and the documents of the *Pelliot Tibétain* collection, repeatedly refer to the "firm helmet" (*dbu rmog brtsan po* or *dbu rmog btsan po*), an expression related to kingship. The following quote from a stone pillar originating at the end of the eighth century in Chongye ('Phyong rgyas) emphasises the significance of the helmet by pointing out its splendour:

The gods, rulers, fathers, and forefathers came as the sovereigns of gods and people. By tradition, the laws and principles were good. Their mighty helmets were magnificent.²²⁷

Later, this stone pillar describes how the dominion developed under "the magnificence of the firm helmet"²²⁸ and how the countries unified under the firm helmet.²²⁹ Texts from the *Pelliot Tibétain* collec-

²²³ Tenzin, Namdak Nyima, Rabsal, *A Lexicon of Zhangzhung and Bonpo Terms*, 221, quotes *zhog zhun ke ru* and *zhog dkar ke ru* as "one kind of helmet".

²²⁴ For more details on the terms etymology and on the distinction of various helmets according to social rank, see Bellezza, *Zhang Zhung*, 240-1, also footnotes 112 and 114. The term *ke ru* or *ke ke ru* denotes a precious stone but also "the badge of a particular rank of military office".

²²⁵ Tibetan Bonpo Monastic Centre, *Gzi brjid*, vol. 2, 62, ll. 6-63, l. 2: *zhog zhun ke ru'i sgra bla de / dra ma lcags kyi bya ru can //*. See also 65, l. 6.

²²⁶ Sørensen, *Royal Genealogies*, 202. Kuznetsov, *gSal ba'i me long*, 72, ll. 24-6: *rin po che bai dūrya'i rmog la / pad ma ra ga'i 'phra rgyab pa cig skur nas //*

²²⁷ Li, Coblin, *Old Tibetan Inscriptions*, Inscription V, 299, ll. 1-4: *lha btsan po yab myes lha dang myi'i rjer gshegs te / chos gtsug lag ni lugs kyi bzang / dbu rmog brtsan po ni byin du che'o' //*

²²⁸ Li, Coblin, *Old Tibetan Inscriptions*, Inscription V, 229, ll. 11-5: *chos rgyal chen pos phrin las su ci mdzad pa dang / dbu rmog brtsan po'i byin gyis / chab srid skyes pa la[s] stsogs pa'i gtam gyi yi ge / zhib mo gcig ni //* (A detailed account of the deeds performed by the dharma king and how the empire grew under the splendour of his firm helmets).

²²⁹ Li, Coblin, *Old Tibetan Inscriptions*, Inscription V, 229, ll. 16-22: *byin gyi sgam dkyel chen po dang / dbu rmog brtsan pos [...] chab 'og 'du ste //*. The passage refers to Trisong Detsen (Khri srong lde brtsan) and states that "due to the profound depths of his splendor and his firm helmet, [the people] united during his reign". Similarly, Inscription IV, ll. 7-8: *lha sras kyi chab srid 'dj ltar mtho / dbu rmog brtsand //* (The reign of the di-

tion, such as PT 16 and PT 1287, use phrases such as “the reign of the stable helmet”²³⁰ and “a helmet more stable than a mountain”.²³¹ This wording suggests that the helmet not only refers to a practical tool that protects the ruler’s head but also implies an abstract meaning. The helmet’s firmness on the king’s head becomes a symbol of kingship and authority. A quote from PT 1286 underpins the suggestion that the meaning *dbu rmog* extends beyond the concrete meaning of ‘helmet’:

If mighty kings and very prudent ministers who mutually fought each other were subdued, in the end, they did not withstand [the king] Öde Pugyel (‘O lde spu rgyal).²³²

The meaning of the verb *thub* is ‘to be able, to be possible’ and ‘to withstand’. Therefore, the wording *dbu rmog ma thub* emphasises the argument for an abstract meaning of *dbu rmog* which symbolised royal authority and leadership from the time of the Yarlung Empire onwards.²³³

Apart from being a symbol of kingship, the helmet, or more exactly, its plume on top, serves to identify the warriors involved in combat. The *Conquest of the Fort of Sumpa* refers to helmets with plumes (‘*phru*) of different colours: the helmet with a white plume,²³⁴ yellow,²³⁵

vine son was similarly noble and his helmet firm). See also Inscription 12, East, ll. 53-4: *dbu rmog brtsan / bka’ lung gnyan te* // (His helmet was firm and his advice was strict).

230 Spanien, Imaeda, *Documents Tibétains*, vol. 1, pl. 8, fol. 25b l. 4, *dbu rmog btsan pa’i chab srid* //.

231 Spanien, Imaeda, *Documents Tibétains*, vol. 2, pl. 583, ll. 188-9: *chab srid gnam bas mtho / dbu rmog ri bas brtsan te* // (A reign higher than the sky, a helmet more stable than a mountain).

232 Spanien, Imaeda, *Documents Tibétains*, vol. 2, pl. 555, ll. 26-9: *rgyal po btsan ba dang / blon po ‘dzangs pa dku’ bo che rnam kyis / gchig gis gchig brlag ste / ‘bangs su bkug na / mtha’ ma ‘o lde spu rgyal gyi dbu rmog ma thub ste* //.

233 For the symbolic meaning of *rmog* and *dbu rmog*, see also Tucci, “Kings of Ancient Tibet”, 199-200. This is one of the early names for Tibet since initially the kings of Yarlung unified the country. Another and earlier name is *Spu rgyal* Empire, a toponym derived from the Yarlung kings called *Spu lde gung rgyal* and ‘*Od lde spu rgyal*, see Sørensen, Hazod, *Thundering Falcon*, 42 fn. 10.

234 Kaschewsky, Tsering, *Burg von Sumpa*, vol. 2, 74a ll. 4-5: *de nub phyogs nas rbab rgod ‘gril ‘gril byas nas dmag ‘phung dkar can brgya tsam bcom nas ‘ong skabs* // (From the west, he annihilated about 100 soldiers of the army wearing helmets with white plumes like an avalanche rolling down). The text does not mention the material of the helmet’s decoration. It might consist of feathers. For depictions of helmets with plumes, see Richardson, *Ceremonies*, 36-7.

235 Kaschewsky, Tsering, *Burg von Sumpa*, vol. 2, 80, 79b ll. 4-5: *dung skyong gi nub phyogs nas gri brgyab nas sum dmag ‘phru ser can drug cu tsam tshags [recte chags] nyil du gtang byung ba’i* // (Dungkyong (Dung skyong) fought in the west with his sword and slaughtered about 60 soldiers of the Sumpa, wearing helmets with yellow plumes).

or blue plume.²³⁶ Apparently, the colourful decoration on the helmet identifies the warriors as members of a particular community or might serve to identify the various armies. A Chinese source, for example, points out that, prior to an attack, the Huns arranged their horses in the four directions according to the colours of the horses' coats. Here, the order apparently follows the Chinese elements.²³⁷ The quotes in the *Conquest of the Fort of Sumpa* might imply similar concepts. The text even refers to the helmet with the head as some kind of trophy.²³⁸

Carry a sword and a bowl wherever you go because you never know if you'll meet a friend or a foe.²³⁹

5 Final Remarks

Tibetan literature, beginning from its earliest sources originating in the inscriptions from Central Tibet until the eighteenth century as well as the oral tradition, provides manifold information on weapons' terminology and usage in Tibet. The texts relate stories of material culture, and reveal directly or indirectly the human skills of processing wood, leather, metal, and other materials, such as feathers or hemp. The sources discussed here allow us to group the weapons used in the Tibetan cultural area into three types.

The first group comprises miscellaneous tools which resemble or are identical to the tools of everyday life, such as iron hooks, hammers, and axes. The rarity of written evidence makes further conclusion difficult. Since metal work was apparently common during the Yarlung Empire, we might, however, assume that these were in Tibet, as in Europe, the weapons of foot soldiers, those of the lower social stratum, or commoners. This, however, does not exclude the upper class from using them as well: particularly precious models of these common weapons and tools were also manufactured for and used by rulers, kings and others of the upper class.

The second group comprises the weapons that were primarily used for hunting, such as lassos, slings, bows, and arrows. The weapons' use required specific skills and physical strength in order to be ef-

236 Kaschewsky, Tsering, *Burg von Sumpa*, vol. 2, 92b l. 4-93a l. 1: *shar phyogs nas* [...] *'phru sngon can mang du* // (From the east many [soldiers] wearing helmets with blue plumes).

237 See Chen, "Chinese Symbolism", 63.

238 Kaschewsky, Tsering, *Burg von Sumpa*, vol. 2, 77a ll. 4-5: *mgo 'phru gong len byas nas* // (Having taken the head and the top ornament as trophy).

239 Lhamo Pemba, *Tibetan Proverbs*, 36: *gri dang phor pa gang 'gror 'khyer / dgra dang grogs la gang yong med* //.

fective, but their manufacture required comparably little effort and could be accomplished using natural materials, although iron was used for arrowheads. In ancient or traditional societies, they were the means for survival, helping to provide protection and food security. Since they were common hunting weapons, they might also be regarded as the weapons of the commoners. Nevertheless, as we have seen, the upper class also used bows and arrows, in particular those which were manufactured of special materials and decorated.

The third and final group includes weapons and equipment that were specifically produced for combat and warfare, such as swords, spears, and pikes as weapons, and suits of armour, shields, and helmets as protective gear. Their production required the human skill of metal processing. These were the weapons of warriors and leaders. In particular, swords and helmets were related to kingship, authority, reign, and dominion, both in Tibet and in other cultural contexts.

Last, the analysis of the various literary contexts in which the weapon terms are to be found has shown the broad range of the weapons' semantic use, not only as physical instruments in war, in religious or everyday life contexts but also as metaphorical, symbolic images. Moreover, the terms adopted from other languages such Sanskrit or Mongolian emphasise the transfer and spread of military knowledge including military equipment from neighbouring countries.

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Khra ring bog gi bshad pa and Other Material on the Matchlock

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Abstract By analysing a large variety of historical and literary sources, this article attempts to determine when the matchlock came into use in Tibet and presents an overview of the different names of the *bog*/matchlock muskets in various dialects and regions of Tibet from the early seventeenth century onwards. It illustrates how matchlock enthusiasts among the Tibetan nomads cherished their weapons. It examines several panegyrics (*bshad pa*) on the *bog*, as well as rituals to summon the war god onto the *bog*, and provides both their original Tibetan texts and a translation into English. The analysis also delves into many other different aspects of the culture of firearms in Tibet, such as the terminology (with sketches of *bog*), taboos and superstitions and a tentative tracing of the etymology of the word *bog*.

Keywords Tibetan Weapons. Firearms. *me mda'*. Matchlock. *bog*. *bshad pa*. Armoury. Tibetan Nomads. History of Tibet. *Dga' ldan pho brang*. *Khams*. *A mdo*. *Mgo log*.

Summary 1 Introduction. – 2 Folk Forms of Gun Culture in Tibet. – 3 Sketches and Descriptions of *bog*. – 3.1 Sketches. – 3.2 Descriptions by Western Travellers to Tibet. – 3.3 Tibetan Written Sources on *bog*. – 3.4 Early Translations of Indian Texts and Possible Etymologies of Terms Related to Firearms. – 4 Information on *bog* and *me mda'* from Various Historical Sources. – 5 Armouries. – 6 Classifications of the Different Types of *bog*. – 7 More Mentions of *bog* and *me mda'* in Tibetan Literature. – 8 Folk Ways with Guns. Taboos, Superstitions and Use as Religious Offerings. – 9 Depictions of *bog* in *khram glu* Nomad Songs. – 10 Seven Recitals (*bshad pa*) Dedicated to the *bog*. – 11 A Few Traditional Lists of Warrior's Equipment. – 12 Two Texts to Summon War Deities into a Firearm. – 13 A Prophecy on Weapons' Technology. – 14 Conclusions.



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1 Introduction

Living in an alien culture for nearly sixty years, Tibetans in the diaspora have become uprooted from many forms of indigenous practices, knowledge and beliefs that descend from their age-old heritage and traditions. Inevitably, globalisation and modernity invade everyday exile life, and this added further challenges and had a destructive effect on the continuity of Tibetan culture in exile. There is then a noticeable epidemic of collective amnesia in Tibetan exile society.

Diaspora Tibetans must also be law-abiding citizens in their host countries and, as a result, they are not able to sport guns and swords on special occasions as they once did in Tibet.¹ The inherently gun-toting and sword-wielding culture of Tibet is rarely found nowadays either inside or outside Tibet. At most, the younger generations who are now in Tibet and in exile can play with plastic BB guns made in

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1 In exile, the Central Tibetan Administration in Dharamsala understands Tibet to encompass the "Tibet Autonomous Region" (TAR) as well as Tibetan regions included in other provinces presently governed by the People's Republic of China (PRC), such as Qinghai, Gansu, Sichuan and Yunnan; broadly speaking this additional area includes half of Khams and the whole of A mdo, which was under local Chinese rule in the pre-1959 era. It is not then as the PRC and their loyalist Western Sinologists or Tibetologists understand Tibet: Tibet does not only mean, and is not restricted to, the TAR.

China or immerse themselves in phubbing. Today, most Tibetans under the age of sixty do not have any knowledge or understanding of how to use and wear their traditional arms and ammunitions. They also do not know how to appraise them. Tibetans have forgotten about matchlocks, their use, and the related technical terms.

Tibetan culture has a grand tradition rich in oral and written material in the genres of *bshad pa* (“recital” or “oratory”), *'bod pa* (calling/invocation of a presence to be manifested) and *bstod pa* (eulogy). I have found seven *bshad pa* on *bog*² (matchlock) that are recited in four different areas in Tibet, as well as two *me mda' la dgra lha bkod pa* or “to don/direct the war god (*dgra lha*) to a *bog*” (reproduced in Appendix 1 and 2 of this paper). Therefore, in this paper I will offer some material and related ideas on the cultural significance of the *bog*.

2 Folk Forms of Gun Culture in Tibet

At present, I am unaware of any early Dga' ldan pho brang period (1642-1959) *bshad pa* (recitals on *bog*). One can speculate that *bshad pa* were uttered at least around the time of the introduction of the matchlock, which must have excited the people of Tibet. Even after the introduction of modern guns, *bshad pa* were still recited and considered important mostly in nomadic areas during the twentieth century. It seems that the term *bog* is used for matchlocks. Commonly, Khampas call them *bog*³ and Amdowas name them *bo'u*,⁴ while Goloks tend to call them *me bo'u* or more commonly *rgyugs bo'u*.⁵ Sometimes, the thirty-nine Hor tribes (Hor tsho so dgu) of Khams and the Byang rigs sde bzhi use the term *sbod*⁶ or *sbos*.⁷ Also, in one instance *bos*⁸ is

2 La Rocca, *Warriors of the Himalayas*, 198-213; Jones, *Tibetan Nomads*, 171-2.

3 Kar rgyal don grub, *Mdo khams cha phreng gi lo rgyus*, 31; Dkon mchog bstan 'dzin et al., *Bod kyi lag shes kun 'dus chen mo*, 324-6.

4 Chos 'phel, *Rme'u sa dbang chen po*, 42 (I am indebted to my friend Sman bsher blo gros for reminding me of this reference); Dbal shul bsod nams dar rgyas, *Gser thal gyi lo rgyus*, 46, 48, 50-2, 55-6, 58-9, 65-6, 68-9, 70, 72-5, 77-85, 87, 89, 91-4, 96, 98-9, 100, 181-2; *Mgo log lo rgyus deb ther*, 63-9; Dme tshang padma tshe ring, *Rta bo gong zhol*, 24, 370, 373-4; Dbal shul bsod nams dar rgyas, *Gser thal gyi lo rgyus*, 118.

5 Dme tshang padma tshe ring, *Rta bo gong zhol*, 373.

6 Klu zog rigs gsum, Lji dbang drags, “Gnyis pa bod sbos kyi bshad pa”, 151; *Nag chu'i byang rigs tsho pa'i lo rgyus*, 107; Bkra ba, Tshe dbang 'gyur med et al., “Hor ga rgya 'gram nag gi lo rgyus”, 95, 105, 115-6, 126; Skal bzang bkra shis, Nyi lza, “Ri bo dang ga rga 'khrugs pa'i skor”, 130-4, 139, 148.

7 *Bod ljongs nag chu sa khul gyi lo rgyus*, vol. 5, 61; Bgres song dbang grags et al., *Rdza dmar ge mo dpal ldan*, 10, 13, 19, 20, 31, 56.

8 Dbal shul bsod nams dar rgyas, *Gser thal gyi lo rgyus*, 60, 70, 85.

spelled *bhor*.⁹ With the introduction and use of the modern-day rifle in Tibet in the early twentieth century, people sometimes call matchlocks *bod mda*¹⁰ instead of *bog*, referring to the Tibetan-made gun¹¹ rather than the modern foreign-made gun. Modern rifles are sometimes called *phrul mda*¹² (magical/miraculous arrow) or *rang 'bar*¹³ (self-fired) and, in honorific, *phyag mda*¹⁴ irrespective of whether it is a matchlock or a modern gun. Likewise, the honorific term for the *ral gri* (knife/sword) is *phyag shan* and that for the *mdung* (spear) is *phyag mdung*. Based on records in literary writing, when one is riding a horse and sporting (even a modern) gun this is still called *rta bog rang 'grig*.

Gun culture is part and parcel of Tibetan life, particularly in Khams, A mdo and for the A pho Hor byang thang and Mnga' ris byang thang nomads. It is largely a part of the nomadic cultural heritage. In pre-1959 Tibet, a young man paid a handsome sum of money or used other forms of wealth to acquire a good gun. A good gun was always a most prized and treasured item, and a *bu dpa' bo* or "brave man" who possessed a prized gun commanded much respect from his tribe. Therefore, possessing a good gun was the envy of every young man. In Cha phreng, in southern Khams, there is the saying *mi rta bog gsum tshang ba*,¹⁵ meaning that "a man is complete when he possesses a horse and a *bog*", or when "he is sporting good dress, a *bog* and a spear" (*chas gos bog mdung gsum sprod*).¹⁶

3 Sketches and Descriptions of *bog*

The *bog* is integral to Tibetan attitudes, habits and practices. In the upper part of Khams, in Nags shod, Ri dbang bstan 'dzin relates:

People believe that the "notable accessory" (*dmigs gsal gyi rgyan cha*), which here refers to a gun, is one of the primary accessories for men. In Tibet, there is the saying, "A hundred men, be of one

9 Tulku Pema Lodoe, *The Collected Rediscovered Teachings of Rig 'dzin Nyi ma grags pa*, 267.

10 Ri dbang bstan 'dzin, *Nags shod 'bri ru'i lo rgyus*, 63; Rin chen dpal bzang, *Mtshur phu dgon gyi dkar chag*, 65; Sle zur 'jigs med dbang phyug et al., "Sa byi dmag 'khrug", 14.

11 Regarding the Tibetan Dga' ldan pho brang government's production of guns, refer to Dwang slob mda' zur spyi 'thus rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi chab srid dang 'brel ba'i dmag don lo rgyus*, vol. 1, 32-3.

12 Ri dbang bstan 'dzin, *Nags shod 'bri ru'i lo rgyus*, 63.

13 Bgres song dbang grags et al., *Rdza dmar ge mo dpal ldan*, 2-3, 7, 9-11, 13, 18-19, 22, 27, 33-6, 38, 41, 49, 52, 62.

14 Bstan 'dzin dpal 'byor, *Rdo ring pañdi ta'i rnam thar, stod cha*, 500; *smad cha*, 767.

15 Kar rgyal don grub, *Mdo khams cha phreng gi lo rgyus*, 31.

16 Kar rgyal don grub, *Mdo khams cha phreng gi lo rgyus*, 216.

mind; a hundred horses, be in one file; a hundred guns, held and struck at one time” (*mi brgya blo sems gcig 'dra dgos, rta brgya kha ru mnyam 'then dgos, mtshon brgya yu lung gnyam 'ju dgos*).

Therefore, we see men, horses and weapons [guns] expressed together in one breath.

The earliest firearm used by Tibetans was the Tibetan matchlock (*bod mda'*), which has two wooden horn-like prongs, the ends of which were covered in metal, and it was sometimes decorated with flags. There are features such as smoke exhaust (*du len*), tinder (*spra ba*), flash pan (*ting dkar*), butt pad (*dpung yu*), stock (*sgom shing*), spark plug (*sbi di*), spark plug cover (*sbi shub*), barrel cover (*sna khebs*), trigger (*skam gnon*), and stock plates (*'gram shan*). There are other accessories such as the powder horn (*rdzas ru*) and the shell pouch (*mde'u khug*) which usually hung from the waist. With the subsequent introduction of modern guns, people began beautifying their guns by affixing silver plates on the sides of the stock and sporting a cartridge belt (*sked 'khor*), which carried anything from as few as five rounds to as many as twenty or forty rounds. During summer picnics, major festivals, and propitiatory incense ceremonies for protector deities, men and horses would congregate, and on such occasions, the men were seen strutting around with their horses and weapons as a sign of courage and valour. The horses were clad in full saddle and tack, and the men ornamented themselves with complete sets of the three called *'khor gsum*. [S.T.N.]¹⁷

In short, here, the “notable accessory” is styled as the *'khor gsum lus la btags* (lit. ‘the three weapons appended to the body’).¹⁸

A number of photographs taken during the first half of the twentieth century allow to have an idea of what the Tibetan matchlock looked like (see the photographs reproduced as [figs 4-9] in the Appendix 3 of this paper).¹⁹ This weapon was composed of a number of elements referred to with a specific Tibetan terminology.

3.1 Sketches

A number of sketches help us understand the exact terminology of the different parts of the *bog*, as well as the related objects and the way they are worn. The first one [fig. 1] is a sketch of an old Tibet-

¹⁷ Ri dbang bstan 'dzin, *Nags shod 'bri ru'i lo rgyus*, 63.

¹⁸ Zhabs drung tshen ring dbang rgyal, *Mi dbang rtogs brjod*, 195, 464, 475.

¹⁹ Also, on the last page of *Tibetan Treasures. Selections of Production Tools and Weapons of Successive Dynasties* (2001) there is a studio photograph of a beautiful old Tibetan *bog*.

an *bog* that was drawn for me by Lha btsun phyag mdzod blo bzang bstan 'dzin in 1989.²⁰ Lha btsun phyag mdzod's technical terms for the accessories of the *bog* are only applicable to the nomads of the area north of Lhasa, the A pho Hor pa.

Before the introduction of the *me mda'*, the traditional '*khor gsum* comprised an arrow, a sword and a spear.²¹ But after *me mda'* came into use, the '*khor gsum* comprised a gun, a sword and a spear.²² The different parts of the *me mda'* and its accessories are clearly explained in images found in a recent publication by Tshul khrims blo gros [fig. 2] and in a sketch showing how Khampas of Cha phreng were properly dressed and equipped with arms and ammunition before 1906 [fig. 3].

20 An "Illustration Section, Drawing by Losang Tendzin" is found in Thubten Jigme Norbu and Colin M. Turnbull, *Tibet*, 75. There is no further information about the illustrator, but pages 97-8 show a sketch of how *bog* were hung in the "Interior of a tent showing two sides", and page 102 displays a sketch of a *bog* and its accessories. The text reads: "Gun (*menda*) for hunting and fighting. The gun support of antelope horn can be swung into position underneath, or left along the barrel when firing from the shoulder. The stock is inlaid with silver and turquoise". All illustrations, including the *bog*, are marked with numbers which suggests that there was a legend or identification and explanations that went along with them. Yet nothing of the sort is printed in the book itself. Another work, Ekvall, *Fields on the Hoof*, contains sketches of *bog* on three pages (10, 32, 89). The book states that: "Lobsang Tenzing, the Tibetan artist who drew the sketches used in this book, is a refugee from Central Tibet who now lives in India and supplements his income by illustrations and pictures". At the Fifth Seminar of the International Association of Tibetan Studies organised by Naritasan Shinshoji in Japan in summer 1989, I asked Prof. Thubten Jigme Norbu (Taktser Rinpoche, 1922-2008) about the illustrator of his book *Tibet*. Rinpoche said it was Lha btsun Phyag mdzod, who was then in Dharamsala! Lha btsun Phyag mdzod Blo bzang bstan 'dzin (1919-2003) was a native of 'Dam, north of Lhasa. In his later years he joined the Library of Tibetan Works & Archives (LTWA) and its Department of Oral History projects, and I came to know him fairly well myself. I asked Phyag mdzod la about the illustrations, and he said he not only drew the sketches but also wrote around eighty pages of explanation to go with the illustrations which he sent to Taktser Rinpoche from Paris, where he was working with Prof. R.A. Stein and Mme M. Helffer in the mid-sixties. He was not a painter or illustrator before 1959 while in Tibet and he only made the sketches at the behest of Taktser Rinpoche and others after moving into exile. Taktser Rinpoche told me he could no longer find the texts written by Lha btsun phyag mdzod. When Rinpoche died, his books, papers and photographs were given by his wife and son to Latse Contemporary Tibetan Culture Library, New York. They are not in that collection either.

21 *Dung dkar tshig mdzod chen mo*, 463: "Three sets [of weapons] ('*khor gsum*): [firstly,] in ancient battles, besides wearing helmet and body armour, the three sets of weapons are essential. The term applies to the sets which comprise, firstly, a bow [and arrows] (*mda'* [*gzhu dang mda'*]) to kill enemies from a distance, [secondly,] a sword (*gri*) to kill enemies when the two sides combat, and [thirdly,] a spear to throw at enemies after one had dismounted from a horse" [S.T.N.].

22 It is interesting to note that already in 1693 Sde srid sangs rgyas rgya mtsho (1653-1705) differentiated between the '*khor gsum* of Tibetan custom and that of Mongolian custom; Ser gtsug nang bstan dpe rnying 'tshol bsdu phyogs sgrig khang, *Drin can rt-sa ba'i bla ma ngag dbang blo bzang rgya mtsho*, vol. 10, 138-42, 302, 385.

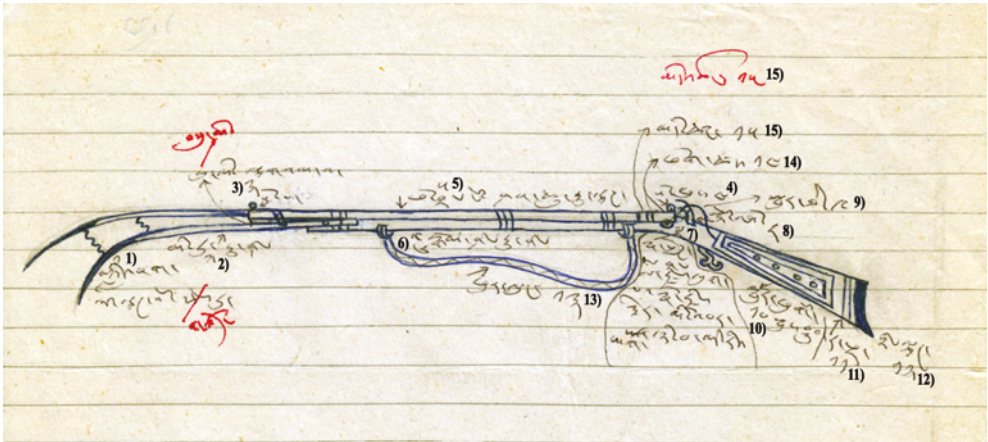


Figure 1 Sketch of an old Tibetan *bog* drawn by Lha btsun phyag mdzod blo bzang bstan 'dzin (1989). Arabic numbers on the sketch have been added by the Author and correspond to the following Wylie transcriptions: 1) *bklel [=klad] nag 'di lcags sam gtsod ru*; 2) *me ru gnyis rgyu shing*; 3) *bsu mo lcags mda'*; 4) *so pa*; 5) *pho brang ngam shan chu / rgyu lcags*; 6) *sgom shing / rgyu shing*; 7) *rna phyogs dang nang la rdzas lug pas rna rdzas zer me 'bar yag lte ba 'di red*; 8) *skam 'go*; 9) *sbur thig*; 10) *sbur khug gam sbur shub*; 11) *ra phra*; 12) *phreng lcang*; 13) *khur lung*; 14) *phog tshad*; 15) *mdo tshang*

3.2 Descriptions by Western Travellers to Tibet

Non-Tibetans in Tibet often commented on the Tibetan guns in their writings. While travelling in parts of A mdo and Khams between 1884-85, the American diplomat William Woodville Rockhill remarked:

The Tibetan's gun is his most valued possession. It is a matchlock with a long fork which pivots around a screw through the stock. The barrel and the iron work are made by the Chinese, but the Tibetan often makes the stock, using very light wood which they cover sometimes with wild-ass skin. They manufacture their own powder and slow-matches, and buy from the Chinese the lead for their bullets. They use no wads in loading, and the bullets are much smaller than the caliber of the guns. They can make very good shooting with them at the average range of about 100 yards, but I never saw them hit a moving object, although some said they could.²³

²³ Rockhill, *The Land of the Lamas*, 78.

In the late thirties, the American missionary Robert Ekvall noticed and witnessed the following practice regarding guns in A mdo:

With the exception of girls and women, all – even teen-age boys – on this duty are armed. Each tent possesses firearms. Even the poorest has one or two muzzle-loading matchlocks, and a tent of modest affluency has at least one breech-loading rifle. To defend the herds, gunfire can come from any of the daylong herder campfires surrounding the tent community.²⁴

Around the same time, the German Matthias Hermann made note of similar incidents in A mdo. In the mid-nineteenth century, the Frenchmen Abbé Huc and Father Gabet, as well as the Russian Colonel Prjevalsky in the late nineteenth century, also witnessed such matchlocks in their travels through parts of Tibet. In short Tibetans believed it is *dang dod chen po* or “stylish and fashionable” to own a *bog*.

3.3 Tibetan Written Sources on *bog*

An interesting statistic is noted in a book published in 2006 on the Mgo log gser rta population records during the “Reform Period”, i.e. 1958 (?): the counting of families included counting the number of *bo’u* that a family possessed. It records that there were 4,736 families, 17,574 persons and 3,342 *bo’u*.²⁵ Here they do not mention the number of head of cattle or other valuable belongings, but only the cherished *bo’u*. It does not specify whether *bo’u* refers to matchlocks or modern rifles.

The gun is also mentioned in numerous historical writings. The autobiography of the First Panchen Lama (1570-1662) contains the following references: “As the second unit of the Mongolian cavalry began to charge, it was time to release a rain of guns [i.e. bullets] and arrows”.²⁶ This eyewitness account details the bloody skirmishes between Sde pa Gtsang pa and Mongols in 1618-19, when the First Panchen Lama was mediating a truce between them. After 1620, during the reign of Sde pa Gtsang pa Karma bstan skyong dbang po (1606-1642), he promulgated the *Khrims yig zhal lce bcu drug* (Legal Code in Sixteen Articles). The first article reads *Dpa’ bo stag gi zhal*

24 Ekvall, *Fields on the Hoof*, 40.

25 Dbal shul bsod nams dar rgyas, *Gser thal gyi lo rgyus*, 43-100. In case of Nyag skor ma, 30 families are documented, but the population and number of *bo’u* are missing. Additionally, the upper, middle and lower Stong bza’ ra skor tribes have listed more than 1,000 families, but the population and number of *bo’u* are also missing. Kos tsha sde ba too has 35 families and more than 100 persons, but the number of *bo’u* is missing.

26 *Pañ chen blo bzang chos rgyal gyi rnam thar*, 117 [S.T.N.].

Ice and the second *Sdar ma wa yi zhal Ice*. These two articles are introduced and roughly translated by John Claude White as the “General rules to be followed in the time of war” and “For those who are being defeated and cannot fight”.²⁷ In the first article we find a mention of *me mda*.²⁸ After 1642 the first two articles were written off by the Dga’ ldan pho brang government.

An important question remains when the matchlock came into use in Tibet. The nineteenth-century Nyag rong lamas, Nyag bla Pad ma bdud ’dul (1816-1872) and his direct disciple Tshwa nyag shes rab mthar phyin, write:

Then the people of the Snow Land, being inferior in learning, introspection, and intelligence, and blinded by the symptoms of fleshy eyes, they the ignorant ones maintained that guns are like [as in] the Treasure texts (*gter ma*). As it is stated in the scriptures, “When ignorance can preclude us from seeing even visible forms, what need be said about doubtful things”. Similarly, for instance, the prospects of having a good or bad harvest, grain yields, and livestock, or even the odds of having a good or bad rainfall in the sixty-year *rab byung* calendrical cycle, are well determined. Hence, the generous rainfall, the good harvest in the valleys, or the rich yields in dairy products of nomads in a particular year is but natural. However, each place or region attributed these to the grace of their principal lamas, respectively. Whenever good or bad things occur, there were even those, who, skilfully and motivated by the eightfold “worldly concerns” (*jig rten chos brgyad*),²⁹ attributed them to prophecies of the lamas of the past.

When a patron king of Rgya zhang khrom faced a confrontation due to a disagreement and dispute, he gained access to guns, which had spread through the demonic power of the past from beyond the oceans and through materialisation of the demonic prayer. It is held that around fifteen generations had passed since the gun was first used. Relying on the guns, the king was able to overcome his enemies. Extremely overjoyed, the king exclaimed: “This is my lama’s compassion, power, blessing, and strength!”. Regardless of Rgya zhang khrom’s instructions, the king put the

27 Risley, *The Gazetteer of Sikkim*, 46-7. The Tibetan ruler *ta’i situ* Byang chub rgyal mtshan (1302-64) also introduced the “Legal code in fifteen articles” (*khriims yig zhal Ice bco lnga*). The first and second articles differ in length and content compared to the legal code of the *sde pa gtsang pa*.

28 *Gtsang pa sde srid zhal Ice bcu drug*, 106.

29 The eight worldly concerns include the eight primary concerns that govern life in an ordinary world according to the Kadampa tradition. Classified into four hopes and four fears concerning four coveted and four detested experiences, respectively, they include hope of pleasure, fame, praise, and gain, and fear of pain, disregard, blame, and loss.

[technology of gun making] in writing, from which the use of guns gradually became popular.

Similarly, when Tibet faced enemy invasions in several regions, it was successful in thwarting these assaults by using guns, which have developed from beyond the oceans. However, writings containing the use of guns were falsely attributed to Rdo rje gling pa, who became the target of criticism. Therefore, it is evident that it has not been very long since guns were first introduced into Tibet. If guns were first introduced by Rgya zhang khrom and Rdo rje gling pa in the *gter ma* teachings, then not only the guns of present, but also the hundreds of techniques for chemicals [weaponry] relating to guns will spread. Could they have spread into Tibet before they had spread outside [if gun techniques were first introduced in Tibet]? For example, is it possible to see in this world the growth of branches, leaves, and fruits without the roots? Similarly, is it possible for the traditional use of nutmeg (*dza ti*), clove (*li shi*), yellow myrobalan (*a ru*), beleric myrobalan (*ba ru*), and emblic myrobalan (*skyu ru*) as medicine to spread from Tibet before it had spread from India? [S.T.N.]³⁰

In short, Nyag bla Pad ma bdud 'dul and his disciple record that this destructive weapon was believed to have been discovered as *gter ma* some fifteen generations earlier. They also state that unidentified people wrongly attribute knowledge of the existence of this *me mda'* in Tibet from beyond the oceans, which was found in a *gter ma* unearthed either by Rgya zhang khrom (early eleventh century)³¹ or *gter ston* Rdo rje gling pa (1346-1405).³² This claim that Rdo rje gling pa was acquainted with the existence of the *bog* is not historically reliable, for the matchlock was invented in Europe only in the following century, the fifteenth century, after the *gter ston* had died. Moreover, in the twenty-one existing volumes of published works of the *gter ston* Rdo rje gling pa, no reference to *me mda'* or any ballistics can be found.³³

30 Tshwa nyag shes rab mthar phyin, *dmyal ba so so'i gzigs snang las / yang sos nang nas me mda'i nyes dmigs khol du phyung ba bzhugs so //*. In *Collected Works of Padma Bdud 'dul Rdo rje Chos skor*, 544-6.

31 Jamgon, *The Hundred Tertöns*, 77-8; Kong sprul karma ngag dbang yon tan rgya mtsho, *Gter ston rgya zhang khrom rdo rje 'od 'bar*, 57-8.

32 Jamgon, *The Hundred Tertöns*, 149-52; Kong sprul karma ngag dbang yon tan rgya mtsho, *Gter ston rdo rje gling*, 101-4.

33 *Texts of the Rdo rje Gling pa tradition from Bhutan*; see also Karmay, *The Diamond Isle*, 138-58.

3.4 Early Translations of Indian Texts and Possible Etymologies of Terms Related to Firearms

The Tibetan term *me mda'* appears in the Tibetan translation of the eleventh-century Indian text *Kālachakra Tantra*. It reads:

Should enemies defeated in battles unexpectedly retreat into the fortress, aim machines from outside and assail them incessantly with stones and *aginshar* (*me mda'*) [= fire arrow/fire archery]. Set slicing machines equipped with swords, and pitch tents and tepees in the area. Having razed their castle to ashes, the destruction is accomplished in a matter of days.³⁴

Explosives and fireworks (*khyogs kyi 'phrul 'khor*) are discussed in the commentaries on the *Kālachakra Tantra*. They mention not only fire arrows (*aginshar*) but also prototypes of cannons (*khyogs/sgyogs*).³⁵

When firearms were introduced into Tibet in the late fifteenth (?) century, the older name *me mda'* was kept. The Shaivite tantra *Swarodaya Tantra* was translated into Tibetan by Glo bo lo tsa ba Shes rab rin chen (early thirteenth century), and in it we find similar use of the word *sgyogs*.³⁶ In the famous Tibetan medical text *Man ngag bye ba ring bsrel* by Zur mkhar ba mnyam nyid rdo rje (1439-1475), there is a small manual on how to make *sgyogs*, entitled *Drag po me rdzas kyi 'khrul 'khor 'bum phrag 'brug gi nga ro* (lit. 'the thunderous roar of 100,000 fierce gunpowder machines'). Here the author provides the following explanation: "A 'fire arrow' (*me mda'*) burns (*sreg pa*) that which one targets".³⁷

34 Kha che'i pañdi ta so ma nā tha et al., *Mchog gi dang po'i sangs rgyas las phyung ba*, 88 and 192: "a mace (*rdo rje*), a sword (*ral gri*), a trident (*rtse gsum*), a sickle-sword (*gri gu*) that destroys the world, and a firearm (*me yi mda'*)". Also see "Dus 'khor 'grel bshad dri med 'od", vol. 99, 256.

35 *The Collected Works of Bo-dōn Pan-chen Phyogs-las-rnam-rgyal*, vol. 2, 393-416. In the introduction of *The Collected Works of Bo-dōn Pan-chen Phyogs-las-rnam-rgyal*, vol. 2, 13-14, Gene Smith writes: "Das (*Tibetan-English Dictionary*, 855) enumerates the seven offensive types of 'phrul-'khor:

1. *Rdo' i 'phrul 'khor* - missiles and bombardment to capture a fortress.
2. *Gru' i 'phrul 'khor* - the naval use of boats and men.
3. *'Bru mar gyi 'phrul 'khor* - the use of burning grain and butter to smoke out a defending army.
4. *Gri gug gi 'phrul 'khor* - the deployment of armed swordsmen.
5. *Rlung gi 'phrul 'khor* - the use of wind and gales to blow away the top of the hill where the enemy fortresses have been constructed.
6. *Rdo rje gur gyi 'phrul 'khor* - the use of magical tents to batter down fortifications.
7. *Lcags mda' i 'phrul 'khor* - the magical cycle of iron arrows to kill the war enemies that have been armored with mail".

36 *Bstan 'gyur*, vol. 114, 1168.

37 Zur mkhar mnyam nyid rdo rje, *Man ngag bye ba ring bsrel pod chung rab 'byams gsal ba'i sgron me*, 399-405 [S.T.N.]. Also see in particular 404, l. 12.

Here one can suggest that Tibetans coined the term *me mda'* by translating and tracing it back to Indic literature, while the later Tibetan vernacular terms *bog*, *bo'u*, *sbod*, *sbos*, *bos*, and *bhor* derive from the Chinese *pào*.³⁸

4 Information on *bog* and *me mda'* from Various Historical Sources

The *Ladakh Chronicle* records that during the period of Seng ge rnam rgyal (?-1642) and his son Bde ldan rnam rgyal (?-1694) there were twenty-five *me mda'* among the list of offerings made to Stag tshang Ras pa (1574-c. 1651).³⁹ The biography of *Zhabs drung* Ngag dbang rnam rgyal (1594-c. 1651) contains the following references:

During that period [between 1633 and 1637], guns, cannons, and ammunition were offered by Purdhu kha [Portugal], a land from beyond the vast ocean. The envoy of the king of the land had sailed on a ship with people of different kinds and appearances for over twelve months. Having passed Goa and the lands of demons - Asirya (*a bzirya*) and Asirka (*a'abzir ka*), via Bengal (*za hor*) in the East, and the Indian Gataka (*gha ṭa ka*), they reached *Sku zhabs rin po che*. They offered guns, cannons, and ammunition, as well as fascinating things such as an optical device that lets distant images appear very close. They said: "If you, O Lama, have contending enemies, I can summon a huge army of my kingdom". Thinking that inviting barbaric (*kla klo*) armed forces will incur transgression of refuge-taking precepts, the Lama claimed to have refused the offer. Before that, guns had not spread anywhere in the land. Because their use was not known, the mere sound of guns brought terror to the hordes of enemies. Furthermore, the *Kālacakra tan-*

³⁸ Werner, *Chinese Weapons*, 29-33. The *Skad lnga shan sbyar gyi manydzu'i skad gsal ba'i me long*, attributed to Emperor Qianlong and Lcang skya, and compiled or written between 1771 and 1790, contains interesting entries on *me mda'*. See *me mda'i dmag (niao qiang bing)* or "Musket" (vol. 1, 857); *me mda' dgu rgyag byed (fang jui jin lian huan qiang)* or "gun with nine bullets" (vol. 1, 907); *me mda' mig gsum pa (Sanyan Chong)* or "three-barrel gun" (vol. 1, 1077); *me mda' me lcags can (Zilia Huo qiang)* or "automatic firearm" (vol. 1, 1078); and *me mda' stabs bde (Xian Qiang)* or "Rifle" (vol. 1, 1078). I am grateful to Byams pa bstan 'dzin la of LTWA, Dharamsala, for translating and writing these in pinyin. It is interesting to note that even after the Qianlong emperor's first Rgyal rong Rabten/Chuchen war (1747-49) and the second Chuchen war (1771-76) the Manchu court did not manage to gain or did not have the knowledge of the local names of muskets, matchlocks, and guns in Tibetan; the terms we find in the present entries look like haphazardly coined terms.

³⁹ Francke, *Antiquities of Indian Tibet*, vol. 2, 40; *La dwags rgyal rabs*, 54. The last dated entry of the chronicle was 1910. One can speculate that the mention of *me mda'* could be a later addition too.

tra states: “Much weaponry against enemies such as the production of cannons, guns, etc”.⁴⁰

Michael Aris has correctly dated and identified the above-mentioned Portuguese persons. He writes:

The Jesuits were the first Europeans to enter Bhutan, and the *Relação* which Cacella [with Cabral] sent from Lcags-ri to his superior at Goa [is] dated 4th October 1627.⁴¹

Aris adds that the party of Portuguese

presented the Zhabs drung with a gift of guns and cannons, and a telescope, and made him the offer of an army which, however, he declined.⁴²

In the *gar glu* notation book of 1688, there is a song which was brought to Lhasa by La thag [Ladakh] O rgyan bu khrid, the text of which reads as follows:

Produced from the middle of the La thag [Ladakh] [plateau]
Me mda' with bas relief goldwork and *me mda'* with bas relief silver work
[We will] offer it to Mi dbang chen po [= Sde srid Sangs rgyas rgya mtsho] [When] we see him
We will offer it with a scarf.⁴³

In 1706 while the Sixth Dalai Lama was kept under house arrest by Lha bzang Khan, monks of 'Bras spungs and Se ra forcefully retrieved the Dalai Lama and a reference to using *me mda'* (gun) while doing so is recorded in the account of Bkra shis 'khyil monastery written in 1800:

Those who gathered there alleged that the Sgo mang [monks] sowed the [seeds of] discord and decided to wage a battle. Two Sgo mang monks - Bsam blo dkar ding and Hal kha dge 'phel - who had sided with them commanded the force and indulged in the wrongful act of firing guns from the roof of Bde yangs monastery building. [S.T.N.]⁴⁴

⁴⁰ Gtsang mkhan chen 'jam dbyangs dpal ldan rgya mtsho, *Dpal 'brug pa rin po che*, 518-19, 553, 597.

⁴¹ Aris, *Bhutan, the Early History of a Himalayan Kingdom*, 217.

⁴² Aris, *Bhutan, the Early History of a Himalayan Kingdom*, 219.

⁴³ Sde srid sangs rgyas rgya mtsho, *Mig yid rna ba'i dga' ston*, 35.

⁴⁴ *Bla brang bkra shis 'khyil gyi gdan rabs lha'i rnga chen*, 317.

An interesting reference to the Tibetan government offering gifts at the enthronement ceremony of the Ninth *Chos rgyal* of Sikkim, Mthu stobs rnam rgyal in 1874 provides further information. Among other presents, there was a “Lahore gun” with a powder flask.⁴⁵

In addition to the references to *me mda'* in sources on the Tibetan government and Central Tibet noted above, various sources allow us to understand how the Tibetan matchlock reached other Tibetan areas. For instance, *Lha thog rgyal rabs* of 1852 mentions the following:

After having conferred titles of *taiji* to seven kings and ministers of Lha thog, Dhā ching ba dur hung taiji led the “priest-patron” (*mchod yon*) army as a back-up force against Rab brtan rgyal po [Qianlong’s first Rgyal rong Rab brtan/Chu chen war (1747-49) and the second Chu chen war (1771-76)]. In appreciation for “crushing the enemy realms to tatters”, the king’s silver-headed seal, a sandalwood statue of Buddha, a golden statue of Amitāyus, the “La pho shel dkar” sword, the “Rgyab ya ma” gun of Khang gсар bla ma, and a *sprul sku* seal[ed] dagger were given to the chieftains and their aides for their accomplishments in the foreign country. [S.T.N.]⁴⁶

Dme tshang Padma tshe ring (2004) gives the following explanation regarding the weapons’ history of the area he comes from, i.e. Rta bo dme tshang, quoting from a narrative contemporary with Shar skal ldan rgya mtsho (1607-1677):

In general, Tibetans are very fond of weapons. In particular, Tibetan nomadic tribes such as the Rta bo dme tshang, who inhabit the nomadic areas, living throughout the grasslands, mountains, and valleys; they are therefore constantly exposed to danger and harm from bandits, robbers, and thieves, as well as from wild and ferocious animals. For people from these areas, armour and weapons are both objects of one’s penchant as well as a necessity.

Therefore, even before the period of the Rta bo bu bzhi [lit. “four horseman sons”], in the past, there were accounts of people using ancient weapons such as *khra b* [body armour] and *rmog* [helmet]; *tshem* [chain mail] and *bem* [breast plates]; *mda' gzhu* [bow and arrow] and *mdung mo* [long spear]; and *ral gri* [sword]. According to the locals, the body armour of Rta bo bu bzhi was preserved until as late as 1958. From the time of the Rta bo bu bzhi, a *me bo'u* [fire matchlock] or *rgyugs bo'u* [tubular matchlock] became popular. As regarding Rta bo bu bzhi, each person was said to possess

⁴⁵ *La hor me mda' rdzas khug cha tshang gcig* ('Bras ljongs rgyal rabs, 180).

⁴⁶ *Lha Thog Rgyal Rabs*, 64.

a matchlock, each bearing a unique name. Their accounts are well recounted in the third section of the first chapter. [S.T.N.]⁴⁷

Dme tshang Padma tshe ring adds more about the Rta bo bu bzhi and their furnishment of matchlocks to the tribe. He writes the following:

In those days, there were no other weapons aside from *mda' mdung gri gsum* [arrow, spear, and sword] and *khra b' khor gsum*, [body armour, helmet, arrow, sword, and spear]. One day, Shar skal ldan rgya mtsho (1607-1677) said [to the four brothers]: "As there is a danger of Rgya chu dkar mig waging battle in the upper region, if you four could each buy a matchlock, you can thwart the assault". As was predicted, they bought four matchlocks and gave these names: Rgya rdo ba'i bya bo'i sgong len, Bod sgar ba'i bo'u dmar a stong, Hor bo'u nag shwa ba rgyugs 'ching, and Sog rgya khab rgya zir brgyus 'dra. By virtue of the meeting of the four sons, four horses and four matchlocks, people lauded them with this expression - *Rta bo'u bu bzhi, rgyal chen sde bzhi, gnam sa ka bzhi, stag mo mche bzhi* [the four horseman sons, the four guardian kings, the four pillars of earth and sky, the four fangs of a tigress]. Others still lauded:

In the sky above, it is the four guardian kings;
In the deep gorges, it is the four-horned 'brong [wild yaks];
In the jungle, it is the four-fanged tigress;
And, on the earth, it is the four horseman sons.

From that time when the matchlocks were first used, the chief-tain family of Rta bo assumed the name of Rta bo'u sde pa. Even though people articulate the word *rta bo'u*, it is written as either *rta bo* or, at times, *rta bor*. [S.T.N.]⁴⁸

Dme tshang Padma tshe ring further continues by saying:

As regards the matchlocks, people have all seen the red matchlock called Bod sgar ba'i bo'u dmar a stong can in the possession of the Rta bo zhol mo household. Also, there are many families possessing comparable *rgyugs bo'u can*, and they have made good use of them when fighting enemies. There are also those matchlocks that were put into great use for hunting and were highly regarded for their accuracy and precision in hitting the targets. Matchlocks such as Dme tshang bo'u khyi and Ru ngan bo'u khyi are good examples of these. [S.T.N.]⁴⁹

⁴⁷ Dme tshang padma tshe ring, *Rta bo gong zhol*, 373-4.

⁴⁸ Dme tshang padma tshe ring, *Rta bo gong zhol*, 24-5.

⁴⁹ Dme tshang padma tshe ring, *Rta bo gong zhol*, 374.

Since the beginning of the twentieth century, modern guns (*khel bo'u*) gradually came into use and became widespread. They include various types of foreign guns such as *ma'i hri*, *krung tre hri*, *san pa hri* with cover (*rna khebs*), *dgu grags*, *kher grags*, *pu ra go ring*, *pu ra go thung*, *che'i cu'u 'brug thel ma*, *lung bzhi*, *rgya gar g.yas 'khyil*, *rgya gar mo tsa* (Indian Mauser), *grul bo'u*, etc. As regarding their prices, there were many cases in which 300 to 400 white sheep and 50-60 head of cattle were given in exchange for a single *me mda'* [these prices are for modern guns] and these specifics shall be discussed later.

When the Chinese communists entered the region in the fifties and established a district (Chinese *qu*) administration, their report said: "In the Upper Rta bo and Lower Rta bo, the three-fold Dme tshang pha yog, the six clan groups of Sgur ru, and the territory under the G.yon zhi'u sde pa, there are around a thousand long and short matchlocks (*bo'u*)."⁵⁰

In short, Shar skal ldan rgya mtsho predicted that the Rgya chu dkar mig (a neighbouring Chahar Mongol tribe?) would soon wage war on the Rta bo tribe, and that the Rta bo tribe should arm themselves by purchasing matchlocks in order to repel this attack. The Rta bo tribe bought four matchlocks named the Rgya rdo ba'i bya bo'i sgong len, Bod sgar ba'i bo'u dmar a stong, Hor bo'u nag shwa ba rgyugs 'ching, and Sog rgya khab rgya zir brgyus 'dra. Here we find four types of *bog*: from China, Tibet, Hor and Sog. This tells us what vintage and what make of matchlocks were used by the Rta bo in the seventeenth century before they surrendered to the Mgo log Khang gsar dpon in the mid-eighteenth century.

Yet Bse mgon po don 'grub of Bse nya lung, from Reb gong in A mdo, writes (2010) that in 1732, during the time of the Second Shar skal ldan rgya mtsho and Rong po nang so, the Bo'u rgyag mdung skor performance and display of *bog* and *mdung* was introduced during the *smon lam* prayer festival at Rong po dgon chen.⁵¹ Thus, many types of *bog* must have been introduced into Tibet and its peripheries. They could have come from Persia, Turkey, Afghanistan, Mongolia, China, 'Jang (Naxi), Russia, Nepal and even Mughal-period India.

50 Dme tshang padma tshe ring, *Rta bo gong zhol*, 374 [S.T.N.].

51 Mtsho lo bse mgon po don grub, "Bse nya lung gi mdung bskor bo'u rgyag skor mdo tsam gleng ba", 55-6.

5 Armouries

Go rtsis (*go chas rtsis bsher*)⁵² is the official term of the Dga' ldan pho brang government for the act of making an inventory of arms. *Go mdzod*⁵³ is the term for the armoury. In pre-1959 Tibet, the *go deb* or "inventory of the armoury" was kept by the Dga' ldan pho brang government and even by the more influential semi-independent aristocratic families, such as the Lha rgya ri family.⁵⁴ Some *go deb* of the Dga' ldan pho brang government are kept in the Tibet Archive in Lhasa. We will see some of these archives one day soon, hopefully.

The term *me mda'* is mentioned in the inventory of Dorjéling armoury (*Go mdzod rdo rje gling*), by the Fifth Dalai Lama in 1667.⁵⁵

52 Shan kha ba 'gyur med bsod nams stobs rgyal, *Bod gzhung gi sngar srol chos srid kyi mdzad rim*, 22.

53 Bstan 'dzin dpal 'byor, *Rdo ring paṅḍi ta'i rnam thar, stod cha*, 422; Shan kha ba 'gyur med bsod nams stobs rgyal, *Bod gzhung gi sngar srol chos srid kyi mdzad rim*, 46, 50; Bod rang skyong ljongs srid gros rig gnas dpyad gzhi'i rgyu cha u yon lhan khang, *Bod kyi lo rgyus rig gnas dpyad gzhi'i rgyu cha bdams bsgrigs*, vol. 4, 53: "An Office of the Chief Army General (*drag po'i spyi 'doms las khungs*) was established at Nor gling Armoury at Zhol in front of Rtse po ta la". *Rgyal dbang lnga pa ngag dbang blo bzang rgya mtsho'i gsung 'bum*, vol. 19, 275-83: "Sections from *The Inventory of Armours and Weapons at Rdo rje gling Armoury at the Great Potala Palace* (*Pho brang chen po po ta la'i go mdzod rdo rje gling gi g.yul chas rnam kyi deb ther*) include 'The Rainfall of Wrath' (*gtum po'i char 'bebs*), etc". Rnam grwa thub bstan yar 'phel, *Lcags po ri'i go mdzod rdo rje*, 250. *Go mdzod* owned by the Dga' ldan pho brang government in the twentieth century are listed in Dwang slob mda' zur spyi 'thus rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi chab srid dang 'brel ba'i dmag don lo rgyus*, 65: "The warehouses for storing armour and weapons include the Rdo rje gling Armoury, the Potala Palace and its adjacent Dgra 'dul khang (Office for the suppression of enemies), the Zhol dungul khang (Zhol mint), the basement at Bde yangs shar in the Potala (*rtse bde yangs shar*), Nor bu gling kha, the Sman chu Armoury (*smān chu go mdzod*) at the foot of Lcags po ri, the armoury of the [headquarters of] Mdo spyi at Chamdo, Stod sgar dpon, Dga' ldan chos 'khor Monastery, and Lha rtse rdzong. In 1949, when Skyid shug, a lay official (*shod drung*), and I were deputed at Rgyal rtse rdzong, our government issued many boxes of ammunition for British handguns, which we impressed with *rdzong spyi* seals and stored at our official granaries and storehouses" [S.T.N.].

54 Lha rgya ri'i khri 'dzin bco bryad pa, *Sde dpon lha rgya ri'i khri 'dzin bcu gcig pa*, 438-9.

55 In the edition of the Drepung Monastery Printery (*Chos sde chen po dpal ldan 'bras spungs par khang chen mo'i spar ma*), the preface (*'Go brjod*) of *The Inventory of Battle Weapons at Rdo rje gling Armoury in Potala Palace* (*Pho brang chen po po ta la'i go mdzod rdo rje gling gi g.yul chas rnam kyi deb ther le tshan*), in the *Rgyal dbang lnga pa ngag dbang blo bzang rgya mtsho'i gsung 'bum*, vol. 19, 275-81, reads:

1. "About Rdo rje gling armoury; classes of weapons; dresses, armour, horse[armour], and weapons of the lay government officials (*drung 'khor*); ensembles of four central units (*dbus tsho*); lightweight armour and weapons (*yang chas kyi go cha*) for long-distance missions; government-regulated Mongolian, Hor, Khams pa, and [Northern] Nomadic (*[byang] 'brog*) armour and weapons; and, chiefly, other essential weapons including swords, bows [and arrows], spears, and firearms, and military shelters and utensils including central command tent (*dkyil sgar gyi gur chen*), cloth fencing (*yol skor*), platoon tents (*lding gur*), and platoon copper cauldrons (*lding zangs*)" (*'Go brjod*, f. 233v6).

In his autobiography, references to *me mda'* are found in the years 1665⁵⁶ and 1679⁵⁷ as well. The Thirteenth Dalai Lama also wrote extensively on this topic in his *The Excellent Lily Garland*.⁵⁸

2. "The second highest grade ceremonial costumes from among the most excellent armour for group warfare that enable one to evolve unhindered from the four-fold divinely-formed cavalry flanks of a Universal Monarch, whose cavalrymen comprise the finest that were selected from among the brave and skilful men across all great regions including Mongolia (*sog po*), the Tibetan territory, Hor, the Northern Nomads, and Mdo khams" (*'Go brjod*, f. 237r4).

3. "Convenient battle equipment, armour, and weaponry in the early portions of the inventory on lightweight equipment (*yang chas*) used for long-distance missions, on the classification of ceremonial costumes (*bzabs mchor*) and an inventory of armour of the great flanks of the White Banner division (*ru mtshon dkar po can*)" (*'Go brjod*, f. 237v6).

4. "Convenient battle equipment of greater armed divisions are as follows... in the classification of ceremonial costumes of the Yellow Banner division (*ru mtshon ser po can*)" (*'Go brjod*, f. 238r6).

5. "Convenient armours and weaponry with [division] engravings are as follows... in the classification of ceremonial costumes of the Red Banner division (*ru mtshon ser po can*)" (*'Go brjod*, f. 238v4).

6. "Inventory of the armour and weapons of India, China, Hor, Mongolia, Khams, and [Northern] nomads" (*'Go brjod*, f. 239r3).

56 Ngag dbang blo bzang rgya mtsho, *Ngag dbang blo bzang rgya mtsho'i rnam thar*, vol. 2, 11.

57 Ngag dbang blo bzang rgya mtsho, *Ngag dbang blo bzang rgya mtsho'i rnam thar*, vol. 3, 243, 262.

58 See in *The Excellent Lily Garland*: 1. "Inventory of Tibetan-made Mechanical Guns (*'khrul mda'*) Manufactured in the Fire Dragon [year] by the Office of the Tibetan Military Headquarters (*bod ljongs dmag sgar las khungs*)", ff. 11r1-12r5.

2. "Inventory of Mechanical Guns Newly Procured by the Office of the Tibetan Military General (*bod ljongs dmag spyi las khungs*)", ff. 12r5-12v7.

3. "Inventory of Mechanical Guns Gifted by Great Britain to the Office of the Tibetan Military General", ff. 12v7-13v7.

4. "Inventory of Weaponry, Armour, Uniforms, Funds, Grain, Money, etc., for Officers and Soldiers [published by] the Office of the Tibetan Military General", ff. 13v7-15r7.

5. "Opening the Door to a New Dawn of Excellent Benefits and Happiness (*Kun bzang phan bde rdzogs idan gсар pa'i sgo 'byed*): An Inventory of Long English Rifles (*dbyin mda' ring ba*) and 'Parts and Accessories' (*le lag*) Gifted by Great Britain to the Prime Minister Bshad sgra ba dpal 'byor rdo rje during the Peace Treaty between Great Britain, Tibet, and China in Shimla in the Wood Tiger Year". This is compiled in *The Infinite Treasury of Science and Technology at the Gra bzhi Office of the Electricals and Machinery* (*Gra bzhi glog 'khrul khang ngo mtshar mtha' klas rig 'phrul gter mdzod*) – *Water-Monkey* [Year], ff. 15r7-18v2.

6. "The Jewel Rosary that Enchants the Wise (*Mkhas pa'i yid 'phrog nor bu'i mgul rgyan*): Inventory of Essential English Military Handguns (*dbyin mda' thung ba*) Issued to the Tibetan Military Headquarters by the Tibetan Cabinet (*bka' shag*) and the Issuance and Delivery Seals". This is compiled in *The Infinite Treasury of Science and Technology at the Gra bzhi Office of the Electricals and Machinery – Water-Monkey* [Year], ff. 18r2-19v2.

7. "The Diamond Weapon that Grounds the Destructive Enemy Forces into Ashes (*Yid srubs bdud sde'i dpung tshogs phye mar 'thag pa'i rdo rje'i mtshon cha*). Inventory of Mechanical Guns and "Parts and Accessories" One of the Four Weapons to Overcome the Enemy Forces – Newly Procured from the British Government", as compiled in *The Infinite Treasury of Science and Technology at the Gra bzhi Office of the Electricals and Machinery – Water Monkey* [Year], ff. 19v2-22r4.

6 Classifications of the Different Types of *bog*

Many different kinds, types, and makes of matchlock are mentioned in Tibetan literature. In official functions and papers, frequent reference is made to the *'dzam grags* type (see [figs 7-8] in the Appendix 3 of this paper). The *go rtsed*⁵⁹ (display and performance of arms in general and the *bog* in particular) took place during the annual Great Prayer (*smon lam chen mo*) celebration in Lhasa, and *'dzam grags*⁶⁰ matchlocks were sported and used during these *go rtsed*. This practice could well go back to the seventeenth century since Sde srid Sangs rgyas rgya mtsho's writing contains a reference to the *me mda' dzam rag* in 1690.⁶¹ In addition, there are also old matchlocks

8. "The Sound of Lion's Thunderous Laughter that Terrifies the Pack of Enemy Wolves (*Gzhan sde wa tshogs spa bkong ba'i gdong lnga'i ngar skad kyi gad brgyangs*). An Inventory of BL 10-Pounder Cannons (*sbi ri el kran pa'un kran ka non*), "Parts and Accessories, and Tools Newly Procured from the British Government", as compiled in *The Infinite Treasury of Science and Technology at the Gra bzhi Office of the Electricals and Machinery - Water-Monkey* [Year], ff. 22r4-24r4.

9. "The Clear Lapis Lazuli that Reflects Your True Self (*Rang ngo rang 'phrod sde wa tshogs spa bkong ba'i gdong lnga'i ngar skad kyi gad brgyangs*). An Inventory with Names and Details of [BL] 10-Pounder Cannons, Machine Guns (*me shen ghan*), English Rifles, English Handguns, Ammunition, and Tools", as compiled in *The Infinite Treasury of Science and Technology at the Gra bzhi Office of the Electricals and Machinery - Water-Monkey* [Year], ff. 24r9-25r5.

10. "Diamond-like Armour and Weapons that Effortlessly End Battles and Bring Benefits and Happiness of the World and Beyond (*Srid zhi phan bde'i rtsa lag rtag brtan gyul ngo rang chas su 'joms pa'i rdo rje'i go khrab*). An Inventory of Lewis Guns (*lu si ghan*) and Accessories and Tools Procured from the British Government", as compiled in *The Infinite Treasury of Science and Technology at the Gra bzhi Office of the Electricals and Machinery - Water-Monkey* [Year], ff. 25r5-27r3.

11. "The Terrific Adamantine Thunderbolt of the Fourfold Strategies (*Las thabs rnam bzhi'i gzer rnon rdo rje'i thog rgod*). Inventory of Mechanical Tools and Accessories that Suppress the Enemy Forces", as compiled in *The Infinite Treasury of Science and Technology at the Gra bzhi Office of the Electricals and Machinery - Water-Monkey* [Year], ff. 21r3-27v6. I am grateful to my friend Dr. Sonam Tsering Ngulphu for translating into English all the items listed in this footnote.

59 Bstan 'dzin dpal 'byor, *Rdo ring pañdi ta'i rnam thar, stod cha*, 1226; Shan kha ba 'gyur med bsod nams stobs rgyal, *Bod gzhung gi sngar srol chos srid kyi mdzad rim*, 10, 25, 28; Richardson, *Ceremonies of the Lhasa Year*, 39-51.

60 Krang dbyi sun, *Bod rgya tshig mdzod chen mo*, 2341: "*'dzam grags* - a short and thick rifle". Shan kha ba 'gyur med bsod nams stobs rgyal, *Bod gzhung gi sngar srol chos srid kyi mdzad rim*, 25, 27-8; Skal bzang bkra shis, Nyi lza, "Ri bo dang ga rga 'khrugs pa'i skor", 137. There is a photograph of three *gzims pa* soldiers on the roof of the Jo khang resting on their *'dzam grags* matchlocks. See Stag lha phun tshogs bkra shis, *Mi tsh'e'i byung ba brjod pa*, deb gnyis pa, two pages after page number 384. This image is reproduced in the Appendix 3 of this paper as [fig. 8].

61 Ser gtsug nang bstan dpe rnying 'tshol bsdu phyogs sgrig khang, *Drin can rtsa ba'i bla ma ngag dbang blo bzang rgya mtsho*, vol. 9, 413. See also a photograph in the *Pho brang po ta la'i ldebs bris ri mo'i 'byung khungs lo rgyus gsal ba'i me long*, *A Mirror of the Murals in the Potala*, 102. The original caption reads: "Style: the Menthang Times: 1690-94, Monks of Namgyal Dratsang in the Potala at a performance of "driving out evil spirits"". Author's note: this is a depiction of *me mda'* in the late seventeenth cen-

called Stag gzig⁶² and 'Bar thang.

According to the recent (1993?) writings of the Klu zog rigs gsum and Lji dbang drags from A mdo stod ma, there were some fourteen types of *bog* in Tibet, which comprise roughly 1. "Mongolian youthful cascade" or "falling water on ice" (*sog po dar thog chu 'babs*), 2. "Mongolian lotus-barreled *rung*" rifle (*sog rung padma kha*), 3. "Sino-Mongolian *bye ma dkar ling*" (*rgya sog bye ma dkar gling*), 4. "White *rung la*" (*rung la dkar po*), 5. "Black *rung la*" (*rung la nag po*), 6. "Variegated *rung la*" (*rung la khra bo*), 7. "Chinese white *shis rab*" (*rgya shis rab dkar po*), 8. "Chinese black *shis rab*" (*rgya shis rab nag po*), 9. "Chinese variegated *shis rab*" (*rgya shis rab khra bo*), 10. "*Me dzu lcags* from 'Jang" (*'jang me dzu lcags*), 11. "Blade-splitter from Stod mnga' ris" (*stod mnga' ris 'jag ma kha gshag*), 12. "Mongolian *gru gu rgya lug*" (*sog gi gru gu rgya lug*), 13. "Chinese *le bu chus gser*" (*rgya'i le bu chus gser*), and 14. "Russian *bya dmar byis rjes*" (*bya dmar byis rjes o ru sog*).⁶³

Here again one can say roughly that the *bog* comes from Mongolia, China, 'Jang (Naxi), Mnga' ris and Russia.

'Bri ru dkon mchog thub bstan (2013) offers additional classifications of *me mda'* as follows:

1. Gun (*me mda'*) - *Bo'u* is an old-style gun (*me mda'*) produced by Sde dge in Khams. There are other kinds such as *mnga ris lug sug* and the Mongolian *gam 'jug* (*sog po gam 'jug*).
2. "Variegated" gun (*me mda' khra bo*) - Variegated *rang* (*rang khra bo*, also *rung khra bo*). There are three types of *rang*: variegated, white, and black. According to folklore,

A Variegated *rang* (*rang khra bo*) is like a deer's neck,
A Black *rang* (*rang nag po*) is like a teardrop from crying,
A White *rang* (*rang dkar po*) is like a white tooth in a smile
[these *rang* are same as *rung* in the previous list]. [S.T.N.]⁶⁴

tury in Lhasa and a mural painter's conception of them. This photograph is reproduced in Appendix 3 of this paper as [fig. 10].

⁶² Bgres song dbang grags et al., *Rdza dmar ge mo dpal ldan*, 18, 23, 25; Bkra ba, Tshes dbang 'gyur med et al., "Hor ga rgya 'gram nag gi lo rgyus", 107. I vaguely remember that my grandfather had a prized *bog* called Stag gzig in the late fifties.

⁶³ Klu zog rigs gsum, Lji dbang drags, "Gnyis pa bod sbos kyi bshad pa", 151-2 [S.T.N.].

⁶⁴ 'Bri ru dkon mchog thub bstan, *Dmangs khrod tha snyad ris 'grel srol rgyun gal ba'i me long*, 20. I am quite sure that if we interview locals from A mdo stod ma or in Khams today, some could still identify all the different types of *bog* that were used in pre-1959 Tibet, as even now people are using them for decoration. See also Tshul khrims blo gros, *Bod kyi srol rgyun tha snyad ris 'grel ming mdzod*, 246-9. Terms used here are mostly from the Rdza chu kha area, Mgo log Gser rta and nomads of Brag mgo in Khams. I am grateful to Ms. Tenzing Sedon la Ukyab Lama for sending me copies of the three images in [fig. 2].

One can see that both Klu zog rigs gsum and Lji dbang drags from A mdo stod ma and 'Bri ru dkon mchog thub bstan used nicknames for the matchlock.

Nor nang ngag dbang nor bu (c. 1911-1989), one of the longest serving military secretaries to the Dga' ldan pho brang government in the office in charge of military affairs in the mid-twentieth century, writes that Tibetan government soldiers were known to have used the "Mongolian youthful cascade" (*sog dar ma chu 'bab*), "Mongolian right-oriented" (*sog g.yas gcud* [*/gcus*]), "Mongolian left-oriented" (*sog g.yon gcud* [*/gsus*]), "Mongolian square-pointed" (*sog sgam mda' ma*), "Hor fish-eyed" (*hor nya mig ma*), and "Mongolian four continents" (*sog gling bzhi ma*) matchlocks.⁶⁵ Phreng ring (Taring) 'Jigs med gsum rtsen dbang po rnam rgyal (1908-1991) called them by slightly different names⁶⁶ and suggested that these matchlocks were most probably confiscated or taken from Dzungar Mongol soldiers in the early eighteenth century. He further says that in 1890 the Dga' ldan pho brang government produced a rifle called *Gorkha yang can*.⁶⁷

7 More Mentions of *bog* and *me mda'* in Tibetan Literature

The writings of the Thirteenth Dalai Lama reveal that after the expulsion of the Manchu armies from Central Tibet in 1912 the Dga' ldan pho brang government managed to confiscate the following kinds of Manchu/Chinese rifles and pistols: *me mda' U'u shang*, *cu'u shang*, *ru shang*, *hri rtse lan gru*, *'ber btang* and *krob mda'*.⁶⁸

Until now, I have not seen any reference to, or record of, the matchlock marksmanship skill by Sde srid Sangs rgyas rgya mtsho even though several records of his archery skills exist. In Sde srid Sangs rgyas rgya mtsho's work on the *Legal Code in Twenty-One Articles* of 1681 issued by the Dga' ldan pho brang government, there is one entry for *me mda'*.⁶⁹ The biography of Mi dbang pho lha (1689-1747)

⁶⁵ Dwang slob mda' zur spyi 'thus rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi chab srid dang 'brel ba'i dmag don lo rgyus*, vol. 1, 63 [S.T.N.].

⁶⁶ "The names of the guns are Mongolian "[Youthful] Cascade" (*sog [po dar thog] chu 'bab*), Mongolian "Right-oriented" (*sog pho mo g.yas gcud*), Mongolian men's and women's "Left-oriented" in Dwang slob mda' zur spyi 'thus rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi chab srid dang 'brel ba'i dmag don lo rgyus*, vol. 1, 32.

⁶⁷ Dwang slob mda' zur spyi 'thus rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi chab srid dang 'brel ba'i dmag don lo rgyus*, vol. 1, 33.

⁶⁸ See *The Excellent Lily Garland* by the Thirteenth Dalai Lama, "Bod ljongs dmag spyi las khungs kyis spus sgrub zhush pa'i 'phrul mda'i deb kyi 'go brjod", vol. thi, *shog deb* 12ba5.

⁶⁹ *Blang dor gsal bar ston pa'i drang thig dwangs shel me long nyer gcig pa*, *shog ldeb* 15ba4.

Mi dbang rtogs brjod, which was written in 1733 in an ornate Tibetan poetic language, renders the *me mda'*⁷⁰ as *me'i 'khrul 'khor*,⁷¹ *me'i mda' bo che*,⁷² and *gnam lcags 'brug gi nga ro can*.⁷³ It also tells us about Mi dbang pho lha's skill and mastery as a teenager in firing *me'i 'khrul 'khor*⁷⁴ while on a galloping horse.

The autobiography of Mdo mkhar zhabs drung tshe ring dbang rgyal (1697-1763), *Bka' blon rtogs brjod*, does not say much about matchlocks despite his being a witness to the Dzungar occupation of Lhasa in 1717-21 and his participation in the disturbances of Dbus gtsang in 1727-28.

In the autobiography of the Rdo ring Paṇḍita (b. 1760), we find out how he was trained: "At times, going to places such as the riverbanks near Nor[bu] Ling[ka] for practice in target shooting at a gallop with archery and guns, which later came to be called shooting while galloping (*zhar 'phen*) exercise session".⁷⁵

The autobiography of the Zur khang *bka' blon* Sri gcod Tshe brtan (1766-1820) offers references on game hunting some time in 1795 where he discussed the interesting names of the hounds and of various weapons: *me mda'*⁷⁶ and *me'i mda' 'o che*,⁷⁷ *me'i mda' 'o che lcags ru can*.⁷⁸

In Sde srid Sangs rgyas rgya mtsho's account of the funeral ceremonies and entombment rites of the Fifth Dalai Lama, which took place between 1691-96, we find that among the objects offered frequently by the donors there were musical instruments, animal pelts, armour, helmets and *me mda'*.⁷⁹

In later periods too, similar practices are noted in the autobiography of the Rdo ring Paṇḍita where there are references to *me mda'*

70 Zhabs drung tshe ring dbang rgyal, *Mi dbang rtogs brjod*, 419, 540, 545, 774, 833-4.

71 Zhabs drung tshe ring dbang rgyal, *Mi dbang rtogs brjod*, 21, 32, 43, 54, 221, 233, 235, 241, 279, 419, 464, 471, 505, 560, 571-2, 580, 583, 600, 626-7, 630, 668, 701.

72 Zhabs drung tshe ring dbang rgyal, *Mi dbang rtogs brjod*, 408, 418, 464-5, 475, 493, 507, 538, 545, 550, 588, 600, 607, 630, 651.

73 Zhabs drung tshe ring dbang rgyal, *Mi dbang rtogs brjod*, 583, 600, 607.

74 Zhabs drung tshe ring dbang rgyal, *Mi dbang rtogs brjod*, 34, 125, 195, 204.

75 Bstan 'dzin dpal 'byor, *Rdo ring paṇḍi ta'i rnam thar, stod cha*, 182; also see 427: "At times, they undertook a training called "shooting practice while fast galloping on the horse" (*zhar 'phen*) around Bye rags ("sand embankment" to the north of Lhasa) and Nor gling", which included horse riding and shooting mechanical guns (*phrul 'khor me mda*) [S.T.N.].

76 *Bka'i gung blon gyi khur 'dzin pa'i rtogs brjod bung ba'i mgrin glu*, folio 32na, 76na.

77 *Bka'i gung blon gyi khur 'dzin pa'i rtogs brjod bung ba'i mgrin glu*, folio 31na, 32na.

78 *Bka'i gung blon gyi khur 'dzin pa'i rtogs brjod bung ba'i mgrin glu*, folio 31ba.

79 *Mchod sdong 'dzam gling rgyan gcig gi dkar chag*, 845, 852-4, 856, 858, 860, 866-7, 873, 885, 887-90, 898; Ser gtsug nang bstan dpe rnying 'tshol bsdu phyogs sgrig khang, *Drin can rtsa ba'i bla ma ngag dbang blo bzang rgya mtsho (glegs bam lnga pa'i 'phros drug pa)*, 136, 138, 141-2, 302, 385, 413, 444, 455.

being offered to the officials for restoring the Bsam yas monastery.⁸⁰ Also in the later references dating to 1849-54 we find offerings of *me mda'* as a donation for the restoration of the Bsam yas monastery.⁸¹ Here we even find the lone offering of the long barrel of a *me mda'i lcags hreng*.⁸²

Rdo ring Paṅdita, who led the Tibetan army and was the head of the Tibetan signatories of the Nepal-Tibet treaty of 1791, was equipped with an “old, Russian-made ‘dzam gun” (*me mda' dzam o ru su rgyu rnying*), the old ‘dzam grags from Russia, named “suppressor of enemy force” (*dgra dpung zil gnon*), and the *phyag mda'* belonging to Dbang da la'i bha dur 'Gyur med rnam rgyal (?-1750), plus some thirty other odd ‘dzam grags.⁸³ This fact demonstrates that the ‘dzam grags was the most sought-after matchlock at that time.

In the *Chronicle of Sikkim*, the following references regarding the *me mda'* are recorded for the period of the Gorkha invasion of Sikkim in 1774-88:

When a large Gur[kha] (*gor [kha]*) army arrived [1774] and waged a battle, a gunshot injured Phyogs thub and almost killed him. [...] At that time [1775], the army led by the army commander Brag dkar tshang rig 'dzin killed 300 Gurkhas and handed their heads and hands, two “thunderbolt” (*gnam lcags*) guns, and three “big bang” [*spag chen* (*spag* is a Tibetan onomatopoeia imitating gun sound)] guns to the government. [...] The heads and hands of Gurkhas, the captive soldiers, guns, and many other things were presented at that time. [...] After waging a battle from the tenth to the fifteenth day of the first month of the Iron Rat year [1780], the heads and hands of a commander and one hundred soldiers killed during the battle, as well as guns and five captive soldiers, were handed over to the commander and the Sde pa. [...]⁸⁴

In 1788, Phyogs thub brothers, having defeated the Gurkha army, presented [the regions of] Tsong and Shu 'phags, heads and hands of Gurkhas, captive soldiers, guns, etc., to the government. Similarly, relatives of the late Brag dkar dmag dpon tshang also presented heads and hands of Gurkhas and many weapons including firearms (*me stobs*) to the government. [S.T.N.]⁸⁵

⁸⁰ Bstan 'dzin dpal 'byor, *Rdo ring paṅdi ta'i rnam thar, stod cha*, 188-9.

⁸¹ *The Samye Monastery*, 225, 247, 249-51, 263, 280-1. On page 247, among the gun offerings, one is specified as *rgya mda'*. Does this mean the rest of the guns were Tibetan made?

⁸² *The Samye Monastery*, 275, 277, 288.

⁸³ Bstan 'dzin dpal 'byor, *Rdo ring paṅdi ta'i rnam thar, smad cha*, 767-8.

⁸⁴ 'Bras ljongs rgyal rabs, 114.

⁸⁵ 'Bras ljongs rgyal rabs, 121-2.

The Thirteenth Dalai Lama writes in 1916 that before the introduction of modern British rifles (*dbyin mda'*) into the Dga' ldan pho brang government army (in 1914), they had cherished the *dbang mda'* of Mi dbang pho lha and *'dzam grags* matchlocks.⁸⁶

It is interesting to note that it was the consistent custom and habit of the privileged Tibetan rulers and aristocrats to enjoy the archery contest above any other arms. Plenty of references to their skill and their ability to show off their archery skills can be found, but not to their skills with a matchlock. Yet the annual firing of a gun at a target while on a galloping horse was always performed with a matchlock, even after the introduction of the modern-day rifle. This was because they could perform all the acrobatic flourishes with the lighter matchlock, but not with a heavy modern rifle.

A prominent example of this practice takes place among the Mgo log during the annual Gsangs gsol ritual of the fourth month of the Tibetan calendar when young, energetic and acrobatic men display their skills and sharp shooting with the *bo'u*. I recall a description of these events once told to me by Mkhan po 'Ju bstan skyong:

The Fourth-Pushya of the Ox Month (*glang zla'i bzhi rgyal*) [meaning "the fourth day during a Pushya constellation in the fourth Tibetan lunar month"] is one of the major festivals dedicated to the invocation and propitiation of gods in the nomadic communities of Mgo log. When the male members in these Mgo log communities attended a "Fourth-Pushya of the Ox Month" event, they decorated the horns of their matchlocks (*bog rwa*) [a pair of horns that function as a bipod on a traditional Tibetan matchlock called a *bog*] with streamers and scarves. They also tied a small incense pouch on one of the horns. The men made incense rounds (*bsangs skor*), chanted invocations, and said prayers. After the incense rituals were complete, the men, dressed in their best attire and carrying their matchlocks, stood in a line. Then they chanted a eulogy called "Hail to the Warrior Gods" (*dgra lha dpang bstod*). As they ended each stanza with the verse - "May the Warrior Gods never forsake their people", they gave out a shrilling war cry (*ki sgra*). Then those who had offered incense participated in a horse race at a nearby foothill. In the past, the horsemen also conducted "an enemy suppressing ritual" (*dgra mnan*) on a small plain at the foothill. However, this practice has lost its popularity in recent times.

Then, the men returned to their camps and participated in various shooting games such as *tshang rag* [a horse-riding game that

86 *The Excellent Lily Garland* by the Thirteenth Dalai Lama, "Me 'brug bod ljongs dmag sgar las khungs kyi bod bzos 'khrul mda'i deb kyi 'go brjod dge", vol. thi, *shog ldeb* 11ba6.

includes shooting]. They drew a *liṅga* [an effigy] on a paper and mounted it on a bamboo frame. The agile and skilful young riders mounted their horses. And, then in order, the riders competed in shooting by performing *mgo skor rgyab len*, a manoeuvre whereby a rider swung his gun around his head and back to shoot. They also displayed other manoeuvres such as passing the gun under the horse or swinging the gun in different ways during the competition.

Similarly, men in the Rnga ba region of A mdo fired matchlocks on the twenty-ninth day before the Tibetan lunar New Year [New Year's Eve] to remove obstacles. During the *gtor ma*-hurling ritual procession, monks stood in a long line, followed by musketeers (*bo'u ba*), who fired their loud muskets. At the end of the ritual, the musketeers competed in target shooting of *liṅgas*. These days, however, the Chinese have imposed restrictions on the carrying of guns. As a result, the firing competitions have been discontinued, and people today indulge only in the firecrackers. Nonetheless, these festivals mark important events where men showed off their guns, dresses, and ornaments. In some regions, the parishioners took turns participating as musketeers during the celebrations, where they dressed and equipped themselves in their best to represent their monastic and lay communities.⁸⁷

As far as I know, *bog* and *me mda'* are items that are not included in the appraisals of the *brtags thabs* or *dpyad don* literary works available today. They are not included in the *bzo rigs pa tra* genre, either.

8 Folk Ways with Guns. Taboos, Superstitions and Use as Religious Offerings

A number of taboos (*'dzems bya*) and superstitions (*rnam rtogs*) are linked with *bog*. *Bog* enthusiasts made sure that no monk or woman touched their gun at any time as they widely believed that if monks or women touched the *bog* it became *me mda' kha log* (lit. 'a blunted weapon'). During this period of time, sharp shooters tended to miss their target, whether human or game. At best the shooter could only manage to wound the game. To ward off this curse one had to shoot crows (*khwa ta*).

During times of trouble, one had to be constantly alert and could not afford to relax, laying down the arms one carried all the time. But there were particular ways which Tibetan men used to approach

⁸⁷ On the annual *gsangs gsol* ritual and sharp shooting practices of Glang zla bzhi rgyal among the Rdza chu kha nomads of Khams, see Namkhai Norbu, *A Journey into the Culture of Tibetan Nomads*, 99-113.

their lama while remaining armed. When approaching to receive a blessing, an armed Tibetan did two things. Firstly, he carried the *bog* with the stock pointed towards the lama, so that the barrel pointed away. Secondly, the Tibetan man would also let down the braid of his hair usually wrapped around his head, so that it fell on the front of his chest, and then bend to receive the blessing. At no time did one point a gun at friends or foes as this was taken very badly.

Antique *bog*, swords and the old items of *dgra' lha'i go mtshon sna dgu* (nine types of weapons/arms of the War God) can be found in the *mgon khang* of monasteries throughout Tibet, as well as in Bhutan, Nepal, and the Himalayan regions in India. They are treated as *spyang gzig*s,⁸⁸ objects offered to the protective deities of the monastery.⁸⁹

The autobiography of the First Panchen Lama records two cases of offering *me mda'* as *spyang gzig*s around the year 1658: "Many seized items such as guns were offered"⁹⁰ and "guns as offerings".⁹¹ There is also a mention of offering *me mda'*, among other items, as a display of thanks (*gtang rag*) to the Gnas chung oracle in 1690.⁹²

In old Tibet there are many cases of lamas tying knots on needles and swords; this act is a magical performance to neutralise the potential harm the weapon can cause. I am unaware of any accounts of lamas tying knots onto the long barrel of the *bog*, but there are similar cases in which a *bog* belonging to a greatly sinful person was placed under (called *mnan pa rgyab pa*) a *mchod rten* for the same purpose. Nyag bla Padma bdud 'dul (1816-1872) destroyed some 800 *me mda'* alone, including 300 from the Lcags bdud ri nang in Nyag rong.⁹³

9 Depictions of *bog* in *khram glu* Nomad Songs

References to *bog* and horses are found in a number of songs belonging to the *khram glu* genre of nomads' songs. I have collected forty-seven such songs but will only quote eight of them here due to limitations of space. The respective passages read as follows:⁹⁴

88 Bstan 'dzin dpal 'byor, *Rdo ring paṅḍi ta'i rnam thar, stod cha*, 122; *The Collected Works of Cha-Har Dge-Bśes*, vol. 9, 254.

89 Lozang Jamspal, "The Gonkhang, Temple of The Guardian Deities", 43-9; also see 11-14.

90 *Paṅ chen blo bzang chos rgyal gyi rnam thar*, 302-3 [S.T.N.].

91 *Paṅ chen blo bzang chos rgyal gyi rnam thar*, 305 [S.T.N.].

92 Ser gtsug nang bstan dpe rnying 'tshol bsdu phyogs sgrig khang, *Drin can rtsa ba'i bla ma ngag dbang blo bzang rgya mtsho*, vol. 9, 413.

93 *Collected Works of Pad ma Bdud 'dul Rdo rje Chos skor*, 563: "Dmyal ba so so'i gzigs snang las / yang sos nang nas me mda'i nyes dmigs khol du phyung ba bzhugs so".

94 I am grateful to my friend Dr. Sonam Tsering Ngulphu for translating all eight *khram glu* into English for me.

1. If I should ride my horse, I am ready to ride,
For, on her, I have fastened the saddle, the golden saddle.
If I should not ride, I can opt not to,
For I have not snapped the bridle, the golden saddle.
If I should fire my *bog*, I am ready to fire,
For I have stuffed greyish primer in the barrel (*khog*).
If I should not fire, I can opt not to,
For I have not placed a slow match on the serpentine (*rkam*).
If I should join an alliance, I am ready to join,
For I can form it in just three words.
If I should not join an alliance, I can opt not to,
For I have exchanged neither wealth nor riches.

2. This “long variegated” *bog* (*bog khra ring*) might fail!
This long variegated will never fail
Until the bluish bullets (*mdel*) fail.
This gentle mule might fail!
This gentle mule will never fail
Until her slender legs fail.⁹⁵

3. My hometown is far, far away;
Without a horse, you cannot reach it.
My hometown is where enemies clash;
Without a variegated *bog* (*bog khra ris*), you cannot live.⁹⁶

4. A good stallion is [like] a bird,
And the golden saddle, its plumage.
When the bird assumes the plumage,
Its flight will need nothing more!⁹⁷

5. Variegated *bog* are of two kinds – a long and a short.
How do my hateful enemies deserve them?
Allies are of two kinds – the past and the present.
How do the shameless slanderers deserve them?⁹⁸

6. With a long variegated *bog*, I need a short variegated (*khra thung*) *bog* too,
For I need two – one to take and one to leave!
With a dapple-grey horse, I need a buckskin horse too,
For I need two – one to ride and one to rest [my *bog* to shoot]!

⁹⁵ Ldum khang phun tshogs rnam rgyal, *Skyid sdug mi tshe'i phyi bltas*, 229.

⁹⁶ *Rma khams kyi glu tshan la yi zhes pa'i skor*, 555-6.

⁹⁷ *Rma khams kyi glu tshan la yi zhes pa'i skor*, 576-7.

⁹⁸ *Rma khams kyi glu tshan la yi zhes pa'i skor*, 580.

With a vanguard flank, I need a rearguard flank too,
For I need two – one for the tea and one for the wine!⁹⁹

7. This long variegated *bog* – the “shooter of thousand stars”
(*skar ma stong shar*),
Is not my father’s gun and has too many [accessories] to
carry.
Yet, when shooting hawks on the rocky cliffs,
I miss my “shooter of thousand stars” over and again.¹⁰⁰

8. The clear, blue sky is A mdo’s ceiling,
The “right-twirling masculine lotus-faced” (*pho gdong padma
g.yas ’khyil*) is their gun (*bo’u*).
Red lightning is A mdo’s adornment,
The “thunderous hailstorm” (*thog ser ba*) is A mdo’s long gun
(*bo’u ring*).¹⁰¹

10 Seven Recitals (*bshad pa*) Dedicated to the *bog*

I have collected seven *bog gi bshad pa* (see the Tibetan original in Appendix 1 of this paper). The first is from the ’Brong pa smad ma tribe in Nang chen, Khams. Every sheep year the ’Brong pa undertake a one-day journey to Southern Khams to circumambulate Rong btsan kha ba dkar po, where they picnic for a day or so. They first fire their *bog* blank (*stong mda’*) into the air. Afterwards they aim at targets to find out who is the sharpest shooter. This practice is called *sgar mda’ ’phen*. The next day the pilgrims pack their bags and begin walking towards Rong btsan kha ba dkar po mostly begging (for food). Everyone, rich and poor, continues like this until they have returned home. This particular *khra ring bog gi bshad pa* (lit. eulogy to the “long muzzle Tibetan matchlock”) was told to me by ’Brong smad be hu Rgyal po (1939-2018), the chieftain of the ’Brong pa smad ma at the Bir Tibetan Society, Bir, Himachal Pradesh in 1979. It goes like this:¹⁰²

1.
Om Svasti!
May goodness thrive!
While many have heard of the long variegated *bog*,

⁹⁹ *Rma khams kyi glu tshan la yi zhes pa’i skor*, 580.

¹⁰⁰ *Rma khams kyi glu tshan la yi zhes pa’i skor*, 59.

¹⁰¹ *Mdo khams stod smad kyi la yi’i glu rigs*, 672.

¹⁰² I am grateful to my friend Dr. Sonam Tsering Ngulphu for translating all seven *khra ring bog gi bshad pa* into English for me.

Those who know them well are rare!
If everyone knows, then who do we call an “expert”!

When, in the past, the gods clashed with the demigods,
There were the nine armours and weapons of the *dgra lha* [war gods],

But not that “meteorite gun” (*gnam lcags me mda'*)!

When humans fought in the intermediary world,

There were the nine armours and weapons of the *dgra lha*,

But not that “meteorite gun”!

In the final aeon, when the lifespan was five hundred years,

The Chinese and the Mongols indulged in sinful killings.

The Chinese forces being unsubdued,

The frontier Turks (*du ru sha*) found a means to subdue.

There appeared the “single wisdom-eyed” Mongol (*sog po ye shes spyan gcig*),

Who was the mind-emanation of Guru Padmasambhava.

He forged the “white wish-fulfilling bog” (*bog dkar bsam pa'i don grub*).

With iron from China, Tibet, and Mongolia, he forged the gun;

With iron from Nepal, he shaped its muzzle (*kha*) and strap buckles (*khur lung*).

He forged this (*bog*) from diverse kinds of iron!

On the muzzle, he engraved a lotus *hri*.

To sustain the Buddha’s teachings, thus he engraved!

In the middle frame (*sked*), he engraved a vajra.

For the happiness of the “black-headed” Tibetans (*bod dbu nag*), thus he engraved!

On the breech (*klad*), he engraved the “sea-monster” *gre* (*chu srin gre*).

To annihilate the detested enemies, thus he engraved!

To [defeat] enemies, he forged a serpentine (*bkon bu*) and sulfur[-pan] cover (*rmu gab*),

To kill enemies, he shaped clamps (*mkhregs mthud*),

To splash enemy blood, he moulded a flash-pan (*wa sbyor*),

To kill male enemies, he forged a right[-hand] screw (*gyas gcus*), and

To kill female enemies, he forged a left[-hand] screw (*gyon gcus*).

The right horn (*ru*) [bipod rest] has the nature of “skilful means” (*thabs*);

There, *dgra lha* [war gods] of the Nātha (*mgon po*) class gather.

The left horn has the nature of “wisdom” (*shes rab*);

There, the banner (*dar thag*) of the class of female [Dharma-] Pāla (*srung ma*) is tied.
The horn-stretcher (*ru zam*) [horn bridge] represents the Five Lineage Buddhas;
There, *dgra lha* of the class of Kṣetrapāla (*zhing skyong*) gather.
The screws are made of hardened meteorites;
There, the [Dharma-]Pāla of the red and black Tvāṣṭṛ (*mgar ba*) [smith] gather.
The stock [*rgum*] is made of the redwood from Rngu chu [river];
There, *dgra lha* of the Kākāmukha (*bya rog gdong*) gather.
The stock-plates (*gram lcags*) are engraved with a pair of golden fish and
The tip of the serpentine (*gzer mgo*) is like the morning star (*skar ma bkrag*);
There, the ninety thousand Varma (*wer ma*) [armour (deities)] gather.
The butt (*steng yu*) is engraved with a scorpion;
There, a thousand [Dharma-]Pāla of the Piśāca (*sha za*) class gather.
The hole in the peep sight (*so khung mig*) is like the self-rising sun;
There, the *dgra lha* of the eyes [*mig*] gather,
As the foresight (*so kha*) annihilates the core red and crimson enemies.
The muzzle pin (*so gzer*) is like the big star on the mountain pass;
There, the divine scouts (*lha'i so ba*) gather.
To the right, there is the powder pouch (*rdzas khug*) called “the great bandit sound” (*jag pa sgra chen*);
To the left, there is the bullet pouch (*mdil khug*) called “the one hundred thousand sins” (*sdig pa 'bum gsog*).

The origin of gunpowder, I shall now explain.
In a cast iron [vessel], he blended these three:
The yellow ground-salt [sulfur] (*sa'i lan tsha ser po*),
The white water-salt [saltpetre] (*chu'i lan tsha dkar po*), and
The black wood-salt [charcoal] (*shing gi lan tsha nag po*).
He stored it in a leafy sac made of a poisonous plant,
Out of which he rolled many poisonous balls (*ril bu*).
The bluish bullets (*mdil*) are made from iron ore
And are ever anxious to burst enemies' hearts.

Having set the two horns (*ru*) [bipod rest] on the ground
And rolled the poisonous ball into the barrel,

The firing will blast the enemies' bodies
Like a thunderbolt that wrecks a lofty, red cliff.

It is like an impartial messenger
And like a fast, gushing wind.
With force and power that is unrivalled,
It is like the meteorite bolt from the sky.
This machine (*'khrul 'khor*), the powerful meteoric gun,
Is fired by the one who has the coveted grace of the *dgra lha*.
It terrifies the sinful, malignant, inimical, and adversarial,
And razes enemies' realms to ashes.

O! Let this hit the enemies and opponent forces - the jackal
[like] Mgo log in the east, Spo mi in the south, Brag yab in the
west, and Dge rtse in the north, as well as the forces of armies
and the bands of robbers and thieves.
Hooah! Hooah! Hail! Hail! May the gods prevail!
Ki ki swo swo lha rgyal lo! [S.T.N.]¹⁰³

The second *khra ring bog gi bshad pa* was written by Cha phreng Kar rgyal don 'grub (1929-?) from Cha phreng, Southern Khams in 1992.

2.
About the *khra ring bog* ['long variegated' *bog*]

There are many descriptions, such as of the sword worn across the waist, the "long variegated" *bog* (*phra ring bog*, i.e. 'long, slender';

103 "There is an excellent tradition in the 'Brong bar smad nomadic communities of the Great Kingdom of Nangchen of the A lcags 'bru [clan] in the Mdo stod region of Great[er] Tibet. During each New Year of a sheep year, people undertook a pilgrimage to the sacred mountain of Rong btsan kha ba dkar po (white snow valley deity). Before heading to their pilgrimage destination, they first travelled to a pleasant spot nearby and halted for a day. They set up tents, held a picnic, and enjoyed recreational shooting with firearms. They prognosticated on the success and challenges of their planned pilgrimage based on the firing sound of a *bog* called *sgar mda'* (camp gun). This *bog* is fired into the empty sky without setting up any specific target (*'ben*) or stone-stack (*tho btsugs*). Also, people sang panegyrics on *bog* (*sbog bshad*), extolling their firearms. Then having set up targets and stone-stacks at a distance, men at the camping site actively participated in the shooting competition. The next day, the pilgrims then set forth on their journey towards the sacred Kha ba dkar po mountain, halting wherever they could find a favourable site, grass, and water (*sa chu rtse gsum*)". This historical account and the panegyrics on firearms were composed by Be'u rdo rje rnam rgyal, also known as Vajra Vijaya and more popularly as Rgyal po lags, who was a minister (*mdun na 'don*; Skt. *purohita*) overseeing civil and military affairs for the subjects of King 'Bru in the region of 'Brong bar smad. Even now, he clearly remembers the panegyrics on *Sgar mda'* that he had heard all local elders sing. During our conversation on past Tibetan historical accounts, I immediately put these down in writing in my room at Bsam gtan gling on 10 July 1979.

also *khra ring bog*, i.e. 'long variegated'); the bow and arrows (*nyag phran mda'*); the horse (*li'u rkyang*); the green-slivered barley; the fine Chinese cloth; the blue water; the red fire; and the wandering wind.

The description of *khra ring bog*, for example, is as such. The three kinds of iron – iron from Smar khams sgang, iron from Tsha ba rong, and iron from Ko 'go rong [i.e. Kong po rong] – are mixed to make a *bog*.

If you do not know the smith,
He is the "Oath-bound Tvāṣṭṛ" (*dam can mgar ba*).
If you do not know his smithery apprentice,
He is the *mthe'u rang mgar ba* [thumb(-sized) blacksmith elf].

He set the anvil (*steng*) on the ocean floor,
He placed the bellow (*spe ba*) on the mountain ridge,
He swung the hammer (*tho ba*) in the sky.

With the first drawing of the iron for hammering,
He treats the effects of the poisonous gunpowder.
With the second drawing of the iron for hammering,
He treats the iron to contain the effects of the bullet.
With the third drawing of the iron for hammering,
He treats the iron so that men can guard their land.
With the fourth drawing of the iron for hammering,
He treats the iron so that it suppresses enemies in the four directions.

Like a spyglass that discreetly sees its object,
There is a foresight (*so pha*) that is as small as an anther.
There is a twisting slow-match cord (*me skud sbrul thag*).
There is a trigger (*skam pa*) that resembles a dragon's mouth.
The wooden frames of the *bog* are like smitten gold.
There is a *bog* buckle and a strap that are colourful too.
The sound is loud, like the roar of a thousand dragons.
The bullets are like thunderbolts that shoot from a meteor.
[When fired,] The animals on that mountain will scurry
And those on this mountain will tumble upside down!
Hooah! Hooah! Hail! Hail! May the gods prevail!
Ki ki swo swo lha rgyal lo! [S.T.N.]¹⁰⁴

104 Kar rgyal don grub, *Mdo khams cha phreng gi lo rgyus*, 44-5: "There are descriptions, such as on the "Long Variegated" *bog*; the bow and arrows [*nyag phran mda'*]; the sword across the waist [*sked phran gri*]; horses and asses [*li'u rkyang rta*]; the green-slivered barley; the fine Chinese cloth; and the wandering wind. For example, the panegyric on "Long Variegated" *bog* or *me mda'* states:

The third *khra ring bog gi bshad pa* was written by Klu zog rigs gsum and Lji dbang grags from A mdo stod ma near the Nag chu kha area in 1993:

3.

About the Tibetan *sbod*-Klu sog rigs gsum and Lji dbang grags

This *sbod* [i.e. gun, also *bog*] is an ironsmith's son (*mgar gyi bu*) and iron's nephew (*lcags kyi tsha*), thus its name "smith's son, iron's nephew" (*mgar bu lcags tsha*). When you carry this "long variegated" *sbod* (*khra ring sbod*), "smith's son, iron's nephew", the *dgra lha* [war gods] hover around you. When you fire the gun, it destroys the four-fold enemies. There are seven types of *sbod*: 1. Mongolian "youthful cascade" (*sog po dar thog chu 'babs*), 2. Mongolian "lotus-barrel *rung*" rifle (*sog rung padma kha*), 3. Sino/Mongolian *bye ma dkar ling* (*rgya sog bye ma dkar ling*), 4. *rung la* - white, black, and variegated (*rung la dkar nag khra gsum*), 5. Chinese *shis rab* - white, black, and variegated (*rgya shis rab dkar nag khra gsum*); 6. *Me dzu lcags* from 'Jang (*'jang me dzu lcags*); and 7. "blade splitter" (*'jag ma kha shag*) from Stod mnga' ris.

One

Youthful cascade (*dar thog chu 'babs*),
Variegated and flowing like a youthful cascade,
It looks as if it is sprinkled with gold dust.
Forged in a brownish iron, it has a coarse metal surface.
When this Mongolian youthful cascade is fired,
A wild yak (*'brong*), lying on the ground, shall not rise,
And the one, on its legs, will not walk without a stagger.

Two

Lotus-barrelled *rung* (*rung padma kha*),
It is variegated and looks like a ripple on the water,

Firstly, the iron from Rmar [Smar] khams sgang;
Secondly, the iron from Tsha ba rong; and
Thirdly, the iron from Kong po rong.
Having mixed these three, a *bog* was forged.
If you do not know the smith,
He is the Black Oathbound Tvāṣṭṛ [*dam can mgar ba nag po*].
If you do not know the smithery apprentice,
He is the Mthe'u rang mgar ba.
It sounds like a thousand claps of thunder [*'brug*, also 'dragon'] in the sky,
The bullet is like a striking thunderbolt.
The animals will scurry on the other mountains.
And those on this mountain will tumble upside down!
Hooah! Hooah! Hail! Hail! May the gods prevail!
Ki ki swo swo lha rgyal lo! [S.T.N.]

Its beauty enhanced by the repeated light hammerings.
The muzzle of this *sbod* resembles a lotus.
When beheld, it is irresistible;
When fired, it quashes all adversaries.
Thus, it is the lotus-barrelled Mongolian *rung* (*padma kha'i sog rung*).

Three

Sino-Mongolian *bye ma dkar ling* (*rgya srog bye ma dkar gling*),
A shape that is a blend of Chinese and Mongolian,
It is made from white and, sometimes, mottled iron.
With a narrow barrel and forestock (*kha gzhung*), it has a thick breech.
A gun for hunting wild yaks in the nomadic regions,
It is powerful and can reach far.

Four

Chinese *shis rab* (*rgya shis rab*),
The “twilight” (*skya rengs*) is a white Chinese *shis rab*,
The “meat lover” (*sha dga' ma*) is a black *shis rab*,
The “loud blaster” (*ngar gas can*) is a variegated *shis rab*,
These three *sbod* are called “chunky meat”, and “chunky bullet” (*sha rdog mdel rdog*).

Five

Me dzu lcags from 'Jang (*'jang mda' me dzu lcags*),
Square in shape, the iron barrel is wound with bright wire.
With a black upper cover, its barrel resembles a wailer's mouth.
The square parts bear a lighter hue,
And the cover has a darker hue.
With no studs or inlays and the metals subdued,
This gun from 'Jang called *me dzu lcags* [also *'jang mda' man dzu lcags*]
Can shoot a stag on the high grasslands.

Six

White-, black- and variegated *rung* (*rung dkar nag khra gsum*):
The white *rung* (*rung dkar*) is like a jester's teeth,
The black *rung* (*rung nag*) is like a mourner's tear,
The variegated *rung* (*rung lcags khra*) is like an older man's windpipe.
It is a *sbod* that shoots weasel
Both near and far, and without fail.

Seven

“Blade splitter” from *Mnga’ ris* (*mnga’ ris ‘jag ma ha [g]shag*),
This gun called “blade splitter” (*‘jag ma kha [g]shag*)
Is made of premium iron with short effective range.
The barrel is levelled, and the forestock is raised.
It can hit passerines in shade and crevices.

Also,

The Mongolian *gru gu rgya lug* (*sog gi gru gu rgyalug*)
Resembles the “notched-twisted” *gru gu rgya lug* (*khram gcus*
gru gu rgya lug).

Also,

The Chinese *le bu chus gser* (*rgya yi le bu chus gser*) is a *sbod*
That is not forged, but cast centrifugally.
It is a gun carried on a Tibetan brocade robe.

Also,

Bya dmar byis rjes is a Russian gun (*bya dmar byis rjes o ru*
sog).

The Russian [gun] that “misses when fired” and
“wastes loads of gunpowder and bullets”, thus it is said.
[This is a gun of inferior quality]. [S.T.N.]¹⁰⁵

The fourth *khra ring bog gi bshad pa* is from Khrom tshang, one of the thirty-nine Hor tribes in upper Khams, as recently as 2012. This narrator is from the Bonpo School.

4.

About *sbod*

Om svasti!

May goodness thrive!

When the celestial gods clashed with the demi-gods, there were “the nine armours and weapons of the war gods” (*dgra lha’i go mtshon sna dgu*), but it was impossible for the “long variegated” gun (*khra ring me mda’*) to have existed at that time. When the *gn-yan* spirits clashed with the humans in the middle realms, there were “the nine armours and weapons of the war gods”, but it was impossible for the “long variegated” gun to have existed at that time. When the Nāga (*klu*) clashed with the Bhūpāla (*sa bdag*), there were “the nine armours and weapons of the war gods”, but it was impossible for “the long, mottled gun” to have existed at that time. Finally, in the realm of the humans or [to be more spe-

105 Klu zog rigs gsum, Lji dbang drags, “Bod sbod kyi bshad pa”, 151-2.

cific] the land of the red Turks (*du ru kha*), “the one wisdom-eyed” Mongolian (*sog po ye shes spyan gcig*), through his views (*lta ba*), emptiness (*stong nyid*), power (*stobs*), and miracles (*rdzu 'phrul*), forged the “long variegated” gun.

With white iron from the Deva (*lha*) of the higher realms,
He forged a barrel with a lotus *hri* on it.
For the happiness of the “black-headed” Tibetans (*bod dbu nag*),
this he forged!
With mottled iron from the *gnyan* of the middle realms,
He forged the middle part and engraved a vajra *hri*.
For the spread of the virtuous Dharma, this he forged!

With brownish iron from the Nāga of the lower realms,
He forged an excellent breech and engraved a Makara *gras* (*chu srin gras*, also *gre*)
For the suppression of enemies and malignant spirits.

The “right-oriented” (*g.yas gcus*) gun is forged by Chinese and Mongolian men,
The “left-oriented” (*g.yon gcus*) gun is forged by Mongolian women,
The Chinese “youthful cascade” (*rgya dar thog chu 'babs*) has a water design (*chu ris*).

The “niner” gun (*dgu mda'*) made of red sandalwood
Is fitted with a white iron barrel.
There, *dgra lha* of the male and female Kṣetrapāla gather.

One
On the tip of the right horn (*rwa*) [bipod rest] of “skilful means”,
The *dgra lha* of a thousand Vīra (*dpa' bo*) [bravehearts] encircle.
On the tip of the right [*sic.* left] horn of “wisdom”,
The *dgra lha* of a thousand descendants of Vīrā (*dpa' mo*) encircle.
On the screws (*gcus 'dzer*), nuts (*gcus gdan*), and bolts (*gcus phor*),
The *dgra lha* of the three principal bodhisattvas (*rigs gsum mgon po*) encircle.
On the horn bridges (*ru zam*) are the Buddha-Mandalas,
The thousand red and black *dgra lha* encircle.
The muzzle beed sight (*so 'dzin*) is like “the great star on the high mountain”.
There, the “unflinching-unbeguiling” *dgra lha* encircle.

The muzzle opening (*so khung*) is like “the self-rising sun” (*nyi ma rang shar*)

There, the *dgra lha* of the eyes (*mig gi dgra lha*) encircle.

On the forestock (*ngang ske*) [duck-neck] with “sun and moon” engraving,

Affix the strap eyebolt (*khur lung*) for cross-patterned leather [straps].

There, the “eight voluntary” *dgra lha* encircle.

In the touch hole, which is like “a wild boar’s belly”,

There are a hundred white nails that twinkle like stars outside

And a black serpentine match-cord (*sbi di*) [*Hin. batti*] within.

There, *dgra lha* of the eight Agni (*me lha*) encircle.

Two

As regarding the origin of the black chemical (*nag po rdzas*) [gun-powder], it is produced by mixing ingredients such as red fire-salt (*me’i lan tshwa dmar po*), yellow ground-salt [sulfur] (*sa’i lan tshwa ser po*), white water-salt [saltpetre] (*chu’i lan tshwa dkar po*), the fibrous material from willow tree or animals (*gseb chung glang ma’i tshar bu*), the pith of juniper (*nyin chung shug pa’i rgyu ma*), shale oil (*brag ri dkar po’i stod tshil*), and fat from a king’s heart (*sa bdag rgyal po’i snying tshil*). After the ingredients are gathered, they were taken to “the flint scorpion” (*sdig pa bir gzugs*) chemical warehouse. Then, shoved into “the dungeon of darkness” (*mun rub bang mdzod*) chemical mortar, they are placed under “the beast’s skull” (*srin po ya thod*) chemical pestle and pounded by “the broad-shouldered savage” (*mi rgod dpung pa*). After having faced east, the mixture and the moving creatures are crushed for seven days of poundings. Scrunch! Scrunch!

Three

The “twenty *hala* poisons” (*nyi shu ha la’i dug rdzas*), “the nine alternate turnings of the thirty” (*sum cu’i res mo’i dgu skor*), “the alternate turnings of the eighty” (*brgyad cu’i res mo’i skor stangs*), etc.

Four

Add the poisonous pills at the bottom. Then, fill the bullet shells halfway with the molten mix.

Five

The firing bullets are made of crushed chemicals.

There, the eighteen *rol po dgra lha* (*rol po bco brgyad kyi dgra lha*) encircle.

Take the chemicals compounded in the “iron ear” mortar (*rna cog lcags kyi gtun khungs*)
And pour them in that [breach] engraved with the “sea-monster gre” (*chu srin gre*).
There, “the swift-moving *dgra lha*” (*myur mgyogs can gyi dgra lha*) encircles.
Wherever the gun is pointed, there shall fall a rain of blood.
Wherever the horns are fixed, there shall form a fog of evil.
With a speed that rivals the swiftest wind,
It is like an unwavering strike of a wild thunderbolt.
I did not fire at the gods above,
Yet, the gods bend their legs.
I did not fire at the Nāga below,
Yet the Nāga duck their heads.
I did not fire at the *gnyan* in the middle,
Yet they dodge and turn their body.

The enemies at whom I fire are the Spo bo of the south, the Mgo log of the north, the Nyag rong, who are the enemies of Dharma, and the Yellow Hor. Like a hailstorm, may it hit the heart of the evil enemies! *Hom ma ya!*

On the stock butt (*dpung yu*), where “Bon guardians” (*bon skyong gi sku 'dus*) assemble,
The Kākamukha-nātha (*mgon po bya rog*) encircle.
On the trigger (*skam pa*), where “the envoy of the Ge sar Khrom” (*ge sar khrom gyi pho nya*) gather,
The *dgra lha* of the thousand red and black ironsmiths (*mgar bu dmar nag gi dgra lha*) encircle.

Having mixed the poisonous herbs in the skull cup (*par bu*),

Roll many balls of this toxic mix.
Measure them with “the beast-faced measuring cup” (*'jal phor srin po'i gzugs can*)
And put them in the evil bullet shells. [S.T.N.]¹⁰⁶

The fifth *khra ring bog gi bshad pa* comes from recent Gesar epic literature. It was written by Lha dge or Bdud 'dul rnam rgyal (1916-91), the Chieftain of 'Brong pa stod ma of Nang chen, Khams whilst in Rma ri la kha in (then) Punjab, India, in 1962.

106 Dge legs grags pa et al., *Sbra chen rdzong khongs sngon ma'i tsho shog so so'i lo rgyus*, 336-9. I am indebted to Ven. A Krong rin chen rgyal mtshan for providing me with a copy of the book.

5.
For this variegated meteoric bolt (*gnam lcags khra bo*) in my hand,
The Mongol king Gnam khri btsan po
Snared the black and brown Garuḍa (*khyung*)
From Brag dmar leb chen mountains of Mongolia.
Then, the three *mthe'u rang* - white, black, and variegated,
Gave him three "spirit-stones" (*bla rdo*) - white, black, and variegated.
After three days had passed,
He brought the nine types of iron -
The three upward-twisted white irons,
The three downward-forged black irons,
And the three placed-inside variegated irons.
When the twenty-ninth darkness shrouded them,
The "thumb elves" and the Nine Tvāṣṭṛ Siblings (*mgar ba mched dgu*) struck
The white iron with soft strikes (*mnyen rdung*),
The mottled iron with beautifying strikes (*mdzes rdung*), and
The black iron with hardening strikes (*ngar rdung*).
Having mixed nine kinds each of poison, blood, and medicine -
Three times nine, twenty-seven in all -
They used the solution as quenching water (*ngar chu*).
Having prayed solemnly that no enemies shall escape or survive,
They compound the poisonous mix.
Firstly, borax (*lce tsha*) to infuriate the demonic māra (*bdud*);
Secondly, sulfur (*mu zi*) to infuriate the Mātrika (*ma mo*); and
Thirdly, coal (*sol ba*) to infuriate the Nāga and Rākṣasa (*srin*).
Then, again, the three poisonous liquids are mixed -
Alcohol, the root of anger;
Clarified butter, the root of ignorance; and
Mātrika blood, the root of desire.
Having mixed these in a precious golden vessel,
Fill the shells made of copper, iron, and silver.
Then, loading the bullet on the horse of red light,
Activate the blue iron machine.
When fired, the unailing thunderbolt
Will hit the white and black points without fail!
Ho ma ya! [S.T.N.]¹⁰⁷

107 *Rmi li gser rdzoñ*, 277-9: "Dzam gling ge sar rgyal po'i rtogs brjod las rmi li'i gser g.yang blang ba'i smad kyi le'u khra mo ngo mtshar gtam gyi phreng ba zhes bya ba bzhugs pa'i dbu phyogs lags so".

The sixth and seventh *khra ring bog gi bshad pa* are also written by Lha dge or Bdud 'dul rnam rgyal (1916-1991), the Chieftain of the 'Brong pa stod ma of Nang chen, Khams. These two are tentatively thought to belong to the *khra ring bog gi bshad pa* genre.

6.

This "long variegated" gun called the "slender pack of 100,000 sins" (*sdig pa'i 'bum rdzong*)

Is made of iron of ninety-nine kinds.

With a barrel (*gzhung lcags*) of dark-greyish metal

And a white breech (*klad lcags*) of softer iron,

It has nineteen mechanical parts that pull or push.

The white front sight rivet (*so 'dzer*) is made of silver,

The bullets (*mdel*) are made of precious gold,

The bullet tips (*mdel rtse*) are made of cast aluminum (*stong*),
and

The killer shells (*rme phor*) are made of precious copper.

Thus, they are loaded on the horse of red lightning.

The toxic black *ha la* (*ha la nag po*) poison

Is mixed with nine different poisons.

Firstly, white borax (*zil dkar*) is procured through baneful
prayer

And from the amniotic fluid of a terrific male Māra (*bdud*);

Secondly, yellow sulfur (*mu ser*) comes through violating
commitments

And from the amniotic fluid of a terrific female Māra (*bdud mo*);
and

Thirdly, [black] coal (*sol ba*), which results from bad Karmic
curse

And the terrific evil Nāga.

The nine poisons, nine types of blood, and nine herbs -
Twenty-seven in all,

Come from the prayers of the Māra Surati (*dga' rab*).

It triggers Karma and damnation

To destroy the trichilocosmic universes.

When fired, it is unfailing like a thunderbolt,

And can shatter dry cliffs and cast them in the ocean.

But today, it is on you! *Ho ma ya!* [S.T.N.]¹⁰⁸

7.

This thunderbolt-like gun (*thog mda'*) that destroys nine cliffs

Is brought from beyond the endless ocean.

Firstly, the white molten iron (*zhun lcags*) from the sky;

108 *Rmi li gser rdzong*, 351-2.

Secondly, the brown essence from molten lava (*rdo zhun*);
 Thirdly, the spirit metal (*bla lcags*) of the nine *mthe'u rang*
 siblings (*mthe'u rang spun dgu*):
 From nine types of metal, it is forged.
 Then on the pitch dark of the twenty-ninth [night],
 The nine skilful blacksmiths forged [the bullets]
 Using nine types of blood as *ngar chu* [quenching water]
 And nine herbs and nine poisons.
 Then loading on this horse [i.e.] of “the essence of four elements”
 (*'byung bzhi'i bcud*)
 With the Māra Surati's (*dga' rab*) damnation,
 All factors for destroying the four continents (*gling bzhi*) are
 ripe.
 When fired, it is an unfailing demonic weapon. [S.T.N.]¹⁰⁹

In general, the *khra ring bog gi bshad pa* tell us roughly when the *bog* was introduced in Tibet, that its first maker was in the Snow Land, what the features and properties of the *bog* are, and the parts comprising them, as well as the accessories and materials used to make them. Finally, they describe how to target the traditional enemies of the tribe in the four directions and to visualise firing at them.

Two of the *khra ring bog gi bshad pa* mention that the first people to forge/strike (*brdungs*) a *bog* are *sog po* or Mongol. Here the narrator does not use the usual verb *bzos* to designate the making of the *bog*.

11 A Few Traditional Lists of Warrior's Equipment

The early Tibetan idea of equipping oneself with items to be worn on the body while using weapons is known as *dgra lha'i go mtshon sna dgu*.¹¹⁰ This comprises the clothing and paraphernalia worn by a brave man, thus known as *dpa' chas* attire. Their purpose is twofold: to protect oneself and to harm others.

According to a Mongolian scholar, Cha har dge bshes Blo bzang tshul khirms (1740-1820), the nine basic items to protect the body

¹⁰⁹ *Rmi li gser rdzoñ*, 599-600.

¹¹⁰ A warrior should be protected by nine *Dgra lha gnyan po mched*, war gods on his right shoulder. They are *Gtso bo dpa' brtan dmag dpon*, *Mthu chen dgra 'dul*, *Snang grags 'brug ldir*, *Drag rtsal thog 'bebs*, *Skyes pa srog 'don*, *Sdang ba srog gcod*, *Skyes bu rang chas*, *Bya khra ngon mo* and *Dgra smang shog rtsal dkar mo*. At the same time, he should be protected by the five *Rang la 'go ba'i lha*. They are *Mo lha*, *Srog lha*, *Pho lha*, *Yul lha* and *Dgra lha*; or, alternatively, *Pho lha*, *Mo lha*, *Zhang lha*, *Brag lha* and *Le'u lha*. Cf. “*Dgra lha dpang bstod bzhugs so*”, in *Bdag chen rgya dkar ba shes rab bzang po*, *Bsangs yig dgos 'dod kun 'grub*, 118-26 (*dgra lha dpang bstod don gnyis lhun grub ces bya ba bla chen 'phags pa rin po ches mdzad pa rdzogs so / mangga lam /*).

are the helmet, armour, the mirror plate on the heart, breast plate over the abdomen, the vambraces and rerebraces, the cuisses, the poleyns, the greaves, and the shield.¹¹¹

The nine basic weapons to annihilate others are the wheel with one thousand swords, the battle axe, the dagger, the sword, the arrows, the bow, the spear, the lasso, and the sling.¹¹² In later times, one finds a slightly different list of the *dgra lha'i go mtshon sna dgu*, for example, 1. helmet (*rmog*),¹¹³ 2. armour (*khra*),¹¹⁴ 3. bow [and arrows] (*mda'*),¹¹⁵ 4. spear (*mdung*),¹¹⁶ 5. sword (*gri*),¹¹⁷ 6. axe (*sta re*), 7. protection cloth (*tshe gos*), 8. protection cord (*tshe mdud*), and 9. lasso (*zhags pa*), which are quoted from *Gling sgrung gces btus (deb gnyis pa'i sha 794.6)*.¹¹⁸

111 *Dgra lha'i rten dar btsugs nas mchod ba'i cho ga 'dod don kun 'grub ces bya ba bzhugs so* in the *The Collected Works of Cha-Har Dge-Bśes*, vol. 9, 252): “The nine essential components of armour: helmet (*rmog*) for the head, armour (*khra*) for upper body, breastplate (*snying khebs*) to attach a mirror-plate (*me long*), tassets (*smad g.yogs*) that cover up to the [lower?] abdomen, winged spaulders (*lag shag*) to cover the shoulders, cuisses (*brla 'dril*), poleyns (*pus khebs*), greaves (*rkang shag*), and the shield (*phub*)” [S.T.N.].

112 *Dgra lha'i rten dar btsugs nas mchod ba'i cho ga 'dod don kun 'grub ces bya ba bzhugs so* in *The Collected Works of Cha-Har Dge-Bśes*, vol. 9, 252-3): “The nine essential [*rang byung*, “self-risen”] weapons to destroy opponents: thousand-spoked “wheel of swords” [*ral gri 'khor lo*], double bit axe [*gshog pa'i dgra sta*], dagger [*chu gri*] for cutting, sword [*ral gri*] for slicing, arrows with vulture-feather fletching [*rgod sgro can gyi mda'*], a strong bow, a spear with streamers [*ba dan*], a black Vajra lasso [*zhag pa*], and a nine-eyed [patterned/string] stone sling [*imig dgu ldan 'ur rdo*]” [S.T.N.].
Dgra lha dpang bstod bzhugs so, in Bdag chen rgya dkar ba shes rab bzang po, *Bsang yig dgos 'dod kun 'grub*, 118-26 (*dgra lha dpang bstod don gnyis lhun grub ces bya ba bla chen 'phags pa rin po ches mdzad pa rdzogs so / mangga lam/*).

113 Tshangs dbang dge 'dun bstan pa, *Gzi dmar*, 23-32; La Rocca, *Warriors of the Himalayas*, 68-91; *Brtag thabs padma dkar po'i 'chun po*, 63-4; Dbal shul bsod nams dar rgyas, *Gser thal gyi lo rgyus*, 175-6.

114 Moon, “Tibetan Arms and Armour”, 14-18; Tshangs dbang dge 'dun bstan pa, *Gzi dmar*, 33-58; La Rocca, *Warriors of the Himalayas*, 51-65; *Brtag thabs padma dkar po'i 'chun po*, 50-9, 75-80; Dbal shul bsod nams dar rgyas, *Gser thal gyi lo rgyus*, 177.

115 La Rocca, *Warriors of the Himalayas*, 187-97; Dbal shul bsod nams dar rgyas, *Gser thal gyi lo rgyus*, 178.

116 La Rocca, *Warriors of the Himalayas*, 174-86; Dbal shul bsod nams dar rgyas, *Gser thal gyi lo rgyus*, 179-80.

117 La Rocca, *Warriors of the Himalayas*, 146-73; *Brtag thabs padma dkar po'i 'chun po*, 59-63, 75; Dbal shul bsod nams dar rgyas, *Gser thal gyi lo rgyus*, 178-9; G.yas ru stag tshang pa dpal 'byor bzang po (Author listed as G.yas ru stag tshang pa shākya'i dge bsnen Śrī bhu ti bha dra [=Dpal 'byor bzang po], *Rgya bod kyi yig tshang mkhas pa dga' byed chen mo 'dzam gling gsal ba'i me long*, 330-41; Stag tshang pa dpal 'byor bzang po, *Rgyal rabs mang po'i legs bshad*. The latter work is missing three texts: “1. Origin of the Tibetan Sword (Bod kyi gri byung tshul gyi lo rgyus), 2. Origin of Tea in Tibet (Bod du ja byung tshul gyi lo rgyus), and 3. Treatise on Examining Good and Bad Porcelain (Dkar yol legs nyes brtag pa'i bstan bcos)”.

118 Dbal shul bsod nams dar rgyas, *Gser thal gyi lo rgyus*, 180; Nor brang o rgyan, *Chos rnam kun btus*, 1961: “The nine armours and weapons of Dgra lha (*dgra lha'i go*

The *bog* is not included here, which may indicate that the concept and family of *dgra lha'i go mtshon sna dgu* date before the fifteenth century, when the matchlock was invented in Europe. In earlier versions of the Gling Ge sar episodes, there is no reference to the *bog* in the hero's various expeditions. It was the age of the *mda' gri mdung gsum* (arrow, sword and spear) or more correctly, the generation of the *dgra lha'i go mtshon sna dgu*.

The most beloved and famous ceremony that includes the presentation of the *dgra lha'i go mtshon sna dgu* or *go gsol* to a warrior in Central Tibet is found in the biography of Chos rgyal Nor bzang, the *A lce lha mo* libretto written in the eighteenth century by Sding chen nas tshe ring dbang 'dus. Most of the elders who watch the Chos rgyal Nor bzang opera play anticipate the *go gsol* episode of the play with bated breath.¹¹⁹ In later days, some lamas tended to add *me mda'* to the *dgra lha'i go mtshon sna dgu*.

12 Two Texts to Summon War Deities into a Firearm

I will now present two such examples of texts that explain how to transfer the war deities into the firearm or place the war god (*dgra lha*) onto the *bhor* or *me mda'* (*me mda' dgra lha bkod pa*, see the Tibetan original in Appendix 2). In one case *dgra lha* is spelled *sgra lha*, which is perhaps more archaic.¹²⁰

mtshon sna dgu) are: 1. helmet (*rmog*), 2. armour (*khrab*), 3. bow [and arrows] (*mda'*), 4. spear (*mdung*), 5. sword (*gri*), 6. axe (*sta re*), 7. protective cloth (*tshe gos*), 8. protective cord (*tshe mdud*), and 9. lasso (*zhags pa*). A modern text enumerates them differently:

Describing the nine armours and weapons of *dgra lha*, the *Mahākāla Sādhana* states, The armour and weapons blessed by the Victor include:
Body armour (*go khrab*) that is like emptiness (*stong nyid, sūnyata*),
Protective cord (*tshe mdud*) of love and compassion,
Adamantine helmet (*rdo rje'i rmog*) that is immutable and indestructible,
Secret cloak Ber (*gsang gos ber*) that avoids the extremes of eternalism and nihilism (*rtag chad mtha' bral*),
Swastika shield (*gyung drung phub*) that is indestructible,
Bow and arrows (*mda' zhu*) that unite wisdom and skilful means,
Sword (*ral gri*) that is like wisdom to the [mis]conceptualisations (*rnam rtog, vikalpa*),
Sharp spear (*mdung*) that pierces the core of the mental afflictions (*nyon mongs, kleśa*),
And lasso (*zhags pa*) that ensnares all [false] appearances (*snang ba, drśya*). [S.T.N.]
(*Dbal shul bsod nams dar rgyas, Gser thal gyi lo rgyus*, 174)

See also Padma rgyal, "Gling ge sar rgyal po", 97-106.

¹¹⁹ *Nor bzang gi rnam thar*, 98-9.

¹²⁰ For the term *sgra lha*, see Nam mkha'i nor bu, *Sgrung lde'u bon gsum gyi gtam e ma ho*, 140-2. I am grateful to my friend Dr. Sonam Tsering Ngulphu for translating into English these two texts of "Summoning of the Warlike Deity into the Firearm".

The first one was written by a certain Gñub 'od skyes sprul 'dod ñi sha dha of the Chags ru Nyi ma grags pa (1647-1710) tradition. As of now, I have no additional information regarding the author.

1.

Interstitial Passage

Hūm

On a *bhor* [gun], the positions of the *dgra lha* are as such.

On the tip of the right horn (*rwa*) of “skilful means” (*thabs*),

The *dgra lha* of the male Nātha (*mgon po*) lineages are placed.

On the tip of the left horn (*rwa*) of “wisdom” (*shes rab*) are

The *dgra lha* of the female Devi (*lha mo*) lineages are placed.

On the barrel (*sbu gu*) made of hardened iron,

The *dgra lha* of the Kākamukha (*bya rog gdong can*) are placed.

On the front sight (*so pa*) that seals the enemies’ hearts,

The *dgra lha* of the male and female Kṣetrapāla are placed.

In the opening of the muzzle,

The *dgra lha* of the male and female Vānaramukha (*sprel gdong*) are placed.

On the trigger (*pho nya*) that controls the slow-match lock (*me skam*),

The *dgra lha* of the red and black Tvāṣṭṛ (*mgar ba*) are placed.

On the poisonous serpentine (*dug sbrul 'gug yag*) of the excellent gun,

The *dgra lha* of the black nāga demons (*klu mdud*) are placed.

In the flashpan (*rna phor*), where the borax [gunpowder] sparkles,

The *dgra lha* of the *har len btsan rgod* class are placed.

In the gunpowder (*me mdes rdzas*) of the firing bullet,

The *dgra lha* of the eighteen Rol pa are placed.

In the red meteorite thunderbolt[-like] lead core,

The *dgra lha* of the spirit guardian *shel ging* (*srog bdag shel ging*) are placed.

In the turquoise dragon[-like] sound,

The *dgra lha* of the Kim kam Gṛha demons (*gza' bdud*) are placed.

In the gunpowder case (*kho tho*), which is a storehouse of poisons,

The *dgra lha* of the eight great Gṛha deities (*gza' chen brgyad*) are placed.

In the [powder] dispenser (*sha khag*) is an embracing pair of gre sea monsters (*chu srin gre 'tham*),

The *dgra lha* of the four Mukha (*gdong can bzhi*) are placed.

In the measuring horn (*gzhal phor*) of fierce, sharp[-horned] wild goat,

The *dgra lha* of the Piśāca (*sha za*) are placed.
In the pouch (*hur thum*) for the igniting powder (*mgyogs rdzas*),
which is its chief vitality,
The *dgra lha* of the twenty-eight Nakṣatra (*rgyu skar*)
[constellation] are placed.
In the end of the wild wooden stock,
The *dgra lha* of the Dūtikā (*pho nya*) class are placed.
In the hard thunderbolt screws (*kyus 'dzer*) [also *gcus 'dzer*],
The *dgra lha* of the well-established Vīra are placed.
In the smooth, rainbow-patterned carrying strap (*khur lung*),
The *dgra lha* of the protector Deva are placed.
In the slow-match wick cover (*bhir shub*) with its poisonous wick
(*khur lung*),
The *dgra lha* of the evil Māra (*bdud*) are placed.
In the lethal *sber*-shaped gunpowder bag (*rdzas khug*),
The *dgra lha* of the Bhūpāla (*sa bdag*) are placed.
In the bullet case (*mdel kheb*) that is like a pair of tortoises
conjoined at their bellies,
The *dgra lha* of the eight trigrams (*spar kha*) [Chinese *bagua*],
nine square (*sme ba*), years and months are placed.
In the bullet pouch (*mdel khug*) with a bending fish [design],
The *dgra lha* of the Caṇḍāla (*rdor*) [also *gdol*], Māra and Nāga
are placed.
When this cannon (*me sgyogs*) composed of the five elements
(*'byung ba*)
Is fired at the enemies replete with five poisons (*dug*),
The five [psycho-physical] aggregates (*phung po*) are turned into
ashes
And dissolve into the five wisdoms (*ye shes*).
Having placed the *dgra lha* in their positions,
If one wages war against the corruptors,
One can annihilate the enemies in all ten [directional] places.
Hail, Hail, Hail (*dgra lha*)!

As an ancillary to the eight-fold instructions (*bka' brgyad*),
This *dgra lha* propitiation was written by Gñub 'od skyes sprul
'dod ḡi sha dha
In a light-hearted way and with whatever my mind could grasp.
For any error there may be, I confess to the protector deities.
May I never be separated from the *dgra lha*
Who descend as annihilators of the disruptive enemies!
[S.T.N.]¹²¹

121 Tulku Pema Lodoe, *The Collected Rediscovered Teachings of Rig 'dzin Nyi ma grags pa*, 267.

The second part is loosely attributed to a certain Shākya'i dge slong Rakṣa go mi sa mu ṭa whose biography and dates are unknown to me, though there is speculation that he lived in the nineteenth century and was from A mdo. In 2010, the A mdo scholar Padma rnam rgyal reprinted the text but without mentioning its author.

2.

Furthermore, the placing of *dgra bla* on a gun is as follows.

O! O! O *dgra lha*, whom I have invoked before! Heed me!

For the sake of blessings of extended offerings to you,

The generous patrons have thus placed

The *dgra bla* on their guns.

The golden-hued sulphur (*mu zi*) is yellow,

The conch-like shiny borax (*ze tshwa*) is white,

The donkey-cumbering coal (*sol ba*) is black.

Formed from four proportions,

This gun sounds like the “turquoise dragon” (*gyu 'brug*)

And can enervate the intensity of a mighty thunderbolt.

On this “Great Sound” (*sgra chen*) that splits enemies' hearts,

The *dgra lha* of the [thunder]bolt, thunder, and lightning are placed.

Elegantly shaped, its casing is adorned with nine-fold jewel inlays.

It has two raised, riveted (*gcus phur*) horns,

A front sight (*so 'dzin*) for aiming at the target,

A rear sight through which you calibrate [your aim],

A splendid pouch (*shubs*) to store the igniting tinder (*me rta*),

A camel-shaped iron trigger (*lcags skam*), and

An ignition flashpan (*me len sna*) and the flashpan cover (*sna kheb*),

On these, place the inner-, outer-, and secret-*dgra lha* (*phyi nang gsang ba'i dgra lha*).

[Then,] On the barrel of this gun,

Which is made of steel and whose lifespan is infinite,

Place the enduring and invincible *dgra lha*.

Swo! Swo! For the [downfall of the] enemies!

Chas! Chas! For the [downfall of the] enemies!

May all enemy realms be completely vanquished! [S.T.N.]¹²²

¹²² Shākya'i dge slong rakṣa go mi sa mu Tas (?), *Rlung rta'i ka 'dzugs bsod nams dpung bskyed*, 78-9 (*shog ldeb*, 39ba5-40ka5); Padma rgyal, *Sgra lha'i go mtshon sna dgu yon bdag la 'god tshul*, 234-39. In this text, of the nine *dgra lha'i go mtshon sna dgu* only *ber gos*, *khrab chen*, *gzhu*, *me mda'*, *ral gri* and *rta* are mentioned. See particularly page 237 for *me mda'*. See also *Rlung rta'i ka 'dzugs bsod nams dpal skyed kyi zur 'debs legs tshogs 'bras kyi snye*, 885-92.

The *Dgra lha bkod pa* to the *bog* implies the ritualistic preparation of directing the war god (*dgra lha*) to each part of the *bog* in order to make it become magically empowered.

13 A Prophecy on Weapons' Technology

Tibetans have a great deal of literature on the faults of drinking alcohol, eating meat, smoking cigarettes, and snubbing others. There is also a rare piece on the faults of using *me mda'* entitled "The Ills of Guns" from the section on "The Reviving Hell", taken from *The Vision of the Hell Realms* (*dmyal ba so so'i gzigs snang las / yang sos nang nas me mda'i nyes dmigs khol du phyung ba bzhugs so //*). This passage is from a discourse by Nyag bla Padma bdud 'dul¹²³ and transcribed faithfully by Tshwa nyag Shes rab mthar phyin, a direct disciple of his. It goes as follows:

Regarding guns, there will also be spread of techniques of chemical [weaponry] from beyond the ocean of the nonhumans.¹²⁴ There will be times when fifteen to twenty bullets can be fired at the same time from a single gun, with fifteen to twenty sounds produced simultaneously. There will be times when the sound of a single gun can explode into the ears of living beings as far away as up to one league.¹²⁵ There will be times when a big gun that is able to destroy an entire town becomes available. There will be times when a single magical gun that can burn an entire town will become widely available. There will be times when a gun will produce no sound other than a mild hitting sound of the bullet on its target.¹²⁶ There will be cases when a person is shot by a gun, his or her death is certain, and no fire, smoke, or sound is produced. There will be times when a gun can cause the firing to spiral into the sky. There will be times when a gun can fire even without gunpowder (*mu zi*), soda (*ba tshwa*), etc. There will be times when a gun can fire automatically without the need for a flint. There will be times when a gun becomes impervious to water, and people swimming in water like fish are able to launch a projectile from the middle of the ocean. There will be times when a projectile can

¹²³ *Mdo khams nyag rong gi grub chen nyi zla kun mdzes sam / 'khrul zhiig byang chub gling pa'am / khang brtsegs padma bdud 'dul /*

¹²⁴ *Mi ma yin*: this term applies to a wide range of non-humans such as ghosts, spirits, demons, zombies, etc., or anyone possessing characteristics associated with a class of non-humans.

¹²⁵ *Dpag tshad*: loosely translated as "league", *dpag tshad* is equal to 4,000 fathoms according to Abhidharma and Kālachakra tantras.

¹²⁶ This refers to the use of a silencer on guns.

move by itself in the sky. There will be times when a projectile will move automatically and hit the troops, at which point it will discharge ten munitions towards the four and ten directions as well as above and below while producing ten different sounds. Thus, as a sign of the degeneration of virtues in this world, there will be times with immense proliferation of guns of all kind. [S.T.N.]¹²⁷

The great *gter ston* who died in 1872 thus seems here to predict, among many other warlike developments of the future, the forthcoming appearance of the first fully automatic weapon or machine gun, the Maxim. Prior to its invention, the first gun to fire many bullets continuously was the Gatling gun, invented by George Gatling in 1862 (after the even earlier but much slower Puckle gun created in 1718, however, both not being truly automatic weapons). The British used the Maxim machine gun (invented in 1884) during the Younghusband invasion, which was the first time Tibetans encountered such a devastating weapon. To quote from the Royal Irish Rifle's website: "Following continuing Tibetan refusal to negotiate and further fighting, reinforcements arrived from India, including a Machine Gun detachment, commanded by Lt. J.C. Bowen-Colthurst RIF, from the 1st Battalion, The Royal Irish Rifles. The advance continued. The Tibetan force twice tried to arrest the column's progress on 28 June and again on 6 July; each time the Tibetans lost several hundred casualties. A third battle started on 14 July at a height of 20,000 feet. In these three skirmishes, the Machine Gun detachment fired 2,097 rounds".¹²⁸ Perhaps the French used it in the 1890s against Morocco and Algeria!

14 Conclusions

For nearly a quarter of a century, i.e. between 1959 to c. 1985, across the whole of Tibet, all brands of modern guns and Tibetan matchlocks were confiscated by the PRC. The PLA also confiscated all the firearms and ammunitions from regular Tibetan soldiers, monks, ordinary Tibetan civilian families, freedom fighters and guerrillas, and this included Tibetan matchlocks of varying kinds and differing vintages. After Dga' ldan pho brang dignitaries escaped to India haphazardly and hurriedly, all the firearms and ammunitions that were kept

¹²⁷ *Collected Works of Padma Bdud 'dul Rdo rje Chos skor*, 546-8.

¹²⁸ <https://www.royal-irish.com/events/1-rir-detachment-to-the-tibet-war>. See also there an image of the Maxim gun. Note: Lt. J.C. Bowen-Colthurst is on the left; the barrel is inside a metal tube or housing which contains water to cool it. I am grateful to my friend Jamyang Norbu for sharing this information.

at the main *go mdzod* (armoury) in Lhasa and other smaller Tibetan government *go mdzod* in many different districts (*rdzong*), headquarters and monasteries were also confiscated. At the same time in all the monasteries, big and small, 100 to 1,000 or more years old, firearms and other accessories offered as *spyan gzigs* to the *mgon khang* were also removed by the PRC.

It was only after the introduction of a period of relaxation in late 1979 that Tibetan people in Nag chu, Skye dgu mdo, Gser shul, Li thang, Gser tra and Mgo log could start their annual horse racing (*rta rgyugs*) event again. At such gatherings, people wear overly exaggerated jewellery and clothing, and one feels incomplete if one cannot posture and swagger without a *bog* on one's back. At the same time, horse racing alone does not provide full satisfaction; one needs to show off one's sharp shooting skills using a *bog* while galloping. Nowadays, matchlock-toting and sharp-shooting contests are in full swing during all *rta rgyugs*. There is even a new trend of the bridegroom and his friends sporting *bog* just before the main ceremony starts. These incidents prove that Tibetan matchlock-making skills are very much alive. As of now I have no knowledge of whether or not one needs a licence from the authority to make matchlocks and/or to own one. In any case, one can see that the Tibetan peoples' passion and enthusiasm for the *bog* has never died.

Only a few photographs (that unfortunately cannot be reproduced here for copyright reasons), provide a glimpse of the occurrence of *bog* in modern times. One is on the inside cover of the journal *Bod kyi rtsom rig sgyu rtsal* (Tibetan Literature and Art)¹²⁹ and shows that in the mid-nineties Khampas were already making *bog* for sporting and decorative purposes. Another, in *Tibet Today*,¹³⁰ shows a Tibetan militiaman, while in another publication entitled *Tibet*,¹³¹ a nomadic woman is shown carrying a matchlock with its characteristic prongs. Its caption reads:

The pride and independence of the people of remotest Tibet are eloquently expressed in the bearing of this nomadic woman. The rifle slung on her back is most unusual. Note the two prongs at the end, which are placed on the ground when firing. This type of rifle is thought to have been invented by the Mongols.

The photo was probably taken in the seventies. It would be a challenging and interesting task to compare the old *bog* that are now in

129 Lhundup Namgyal, *Bod kyi rtsom rig sgyu rtsal*.

130 *Tibet Today*, 112.

131 A book published by Jugoslovenska Revija, Belgrade and the Shanghai People's Art Publishing House, authored by Ngapho Ngawang Jigme et al., 120.

Western museums with those recently made in Tibet, as comparing the quality, method and materials would surely yield interesting findings. It is time for wealthy Western museums and galleries to begin collecting the modern-made Tibetan *bog*.

Last but not least, it is known that the Tibet Archives in Lhasa hold some military records (*dmag deb*) of the Dga' ldan pho brang (1642-1959) period, as well as armoury registers (*go theb*). They also hold the military records of Byang bdag myriarchy and of the Sde pa gt-sang pa rulers. It is quite tempting to say that one day, maybe soon, an enlightened Chinese museologist and connoisseur may have the wisdom and wit to curate an exhibition of Tibetan firearms and ammunitions. If such an occasion arises, it would create the conditions for supporting bright students in serious research on the firearms of pre-1959 Tibet.

Appendix 1. The Seven Bog gi bshad pa

ཀྱི ལྟ་འདྲ་ལོག་གི་བཤད་པ།

ལྟ་འདྲ་ལོག་གི་བཤད་པ། (གྲུར་) ཅིག་ལྟ་འདྲ་ལོག་གི་བཤད་པ་དེ། གོ་མི་མང་སྟེ་
ཤེས་མི་དགོན། ཀུན་གྱིས་ཤེས་ན་མཁས་པ་དེ་སྤེལ་ཟེར། དེ་ལ་སྟོན་ཚེ་ལྷ་དང་ལྷ་མིན་འབྲུགས་
པའི་དུས། དཔལ་དག་ལྷའི་གོ་མཚོན་སྤྲ་དགུ་མ་གཏོགས། གནམ་ལྷགས་མེ་མའདུང་ཟེར་བ་ཡོད་མ་
སྲིད། པར་གྱི་མི་ཁམས་འབྲུགས་པའི་དུས། དཔལ་དག་ལྷའི་གོ་མཚོན་སྤྲ་དགུ་མ་གཏོགས། གནམ་
ལྷགས་མེ་མའདུང་ཟེར་བ་ཡོད་མ་སྲིད། ཚེ་ལྷ་བརྒྱ་དུས་ཀྱི་མཐའ་མ་ལ། རྒྱ་སོག་སྟེག་པའི་སྟོག་གཅོད་
ཚོ་རྒྱ་མ་ཐུབ་མཐའ་དམག་དུ་བྱུ། །དེ་ཉིད་འདུལ་པའི་གཉེན་པོ་ལ། སོག་པོ་ཡི་ཤེས་སྤྱན་གཅིག་
དེ། ལྷ་བྱ་དང་འབྲུང་ཐུགས་ལས་སྐྱུལ། དེས་པོག་དཀར་བསམ་པའི་དོན་གྲུབ་བརྒྱུད་སྤྱི་ལྷགས་
པོད་ལྷགས་སོག་ལྷགས་གསུམ། ཁ་དང་འབྲུང་ལུང་བལ་པོའི་ལྷགས། ལྷགས་མི་གཅིག་ལྷགས་སྤྱི་
དགུ་ལ་བརྒྱུད། ཁ་སྟོད་པད་མ་ཉིལ་ལ་བརྒྱུད། ཚེས་སངས་རྒྱུས་ཀྱི་བསྟན་པ་དར་རྒྱལ་བརྒྱུད།
སྟོད་པ་རྟོ་རྟེན་འགྲོལ་ལ་བརྒྱུད། པོད་དབྱ་ནག་བདེ་ལ་འཁོད་རྒྱལ་བརྒྱུད། ལྷ་དན་རྟེན་རྒྱ་སྟོན་
གྲོ་ལྷ་དར་བརྒྱུད། ལྷ་དག་པོ་ཚམས་ལ་བབས་རྒྱལ་བརྒྱུད། དག་ལྷ་གལ་བཀོན་པའི་བཀོན་ལུ་
བརྒྱུད། དག་སོག་གཅོད་པའི་མཁའ་གསལ་མཐུན་བརྒྱུད། དག་ལྷག་ལྷག་པའི་ལྷ་སྟོར་བརྒྱུད། དག་
པོ་སོག་གཅོད་པའི་གཡམ་གཅུས་བརྒྱུད། མོ་སོག་གཅོད་པའི་གཡོན་གཅུས་བརྒྱུད། ཅུ་གཡམ་
པ་ཐབས་ཀྱི་རང་བཞིན་ལ། མགོན་པོ་པོ་བརྒྱད་རྣམས་ཀྱི་དག་ལྷ་འཁོར། གཡོན་པ་ཤེས་རབ་ཀྱི་རང་
བཞིན་ལ། ལྷ་དམ་པོ་བརྒྱད་རྣམས་ཀྱི་དར་ཐག་འབྲེན། ཅུ་ཐམ་རྒྱལ་བ་རིགས་ལྷ་ལ། ལྷ་ཞིང་སྟོར་
ལལ་ལྷམ་གྱི་དག་ལྷ་འཁོར། གཅུས་སྟེམས་གནམ་ལྷགས་རར་མ་ལ། མགར་བ་དམར་ནག་སྤྱང་
མ་འཁོར། རྒྱུ་ལོད་རྒྱལ་རྒྱུའི་ལོད་དམར་ལ། མགོན་པོ་ (ཚ་བ་) ལྷ་རོག་གདོད་གི་དག་ལྷ་འཁོར།
འགམ་ལྷགས་གསེར་ཉ་ཁ་སྟོད་ལ། གཟེར་མགོ་སྐར་མ་བཀྲག་འདྲ་ཡོད། རེར་མ་དགུ་ཁྱི་དགུ་
འབྲུམ་འཁོར། ལྷ་ལྷ་སྟེག་པའི་ར་ལྷམ་ལ། ལ་ཟན་སྟོར་གི་དག་ལྷ་འཁོར། སོ་ལྷ་ལྷ་ལྷ་ལྷ་གི་ཉི་མ་
རང་ཤར་ལ། ལྷ་བ་མིག་གི་དག་ལྷ་འཁོར། སོ་ཁ་དག་སྟོང་དམར་པོ་དམར་མེ་བརྟོག། སོ་གཟེར་
ལ་ཁའི་སྐར་ཚེན་འདྲ། རང་སྤྱང་ལྷ་ལི་སོ་བས་བསྟོར། གཡམ་སྤྱི་རྒྱུ་ལྷག་ཐག་པ་སྤྱི་ཚེན་དང་།
གཡོན་དུ་མའི་ལྷག་སྟེག་པ་འབྲུམ་གསོག་ཡོད། དེ་ཉི་རྣམ་ཀྱི་ལོ་རྒྱུས་བཤད་ཅན། ས་ཡི་ལན་
ཚ་སེར་པོ་དང་། ལྷ་ཡི་ལན་ཚ་དཀར་པོ་དང་། ལོད་གི་ལན་ཚ་ནག་པོ་བཅས། ལན་ཚ་གསུམ་གྱི་ཁོ་
སྟོར་ནས། དུག་ལོད་སྤྱར་བུའི་ནང་དུ་བཅུག། དུག་རྣམ་རིལ་བུ་དགུ་བསྟོར་བྱེད། མའི་ལྷ་མོ་ཐེར་
རོང་ལྷགས་ལས་བྱས། དག་སྟོང་གཏོར་ལ་ཕྱེལ་རྒྱབ་རྒྱབ། ཅུ་གཉིས་གཡམ་གཡོན་ས་ལ་གདབ།
དུག་གི་རིལ་བུ་ཁན་ལྷང་། དག་བལྟགས་གཞུགས་ལ་རྒྱབ་ཅན། དག་དམར་ཐོགས་ཀྱིས་ (ཐོག་
གིས་) གཏོར་བ་འདྲ། ཉི་རིང་མེད་པ་མངགས་པའི་བང་ཚེན་འདྲ། ལྷར་མཁྱོགས་ཚེ་བ་སྤྱི་སེར་རྒྱང་
དང་འདྲ། ལྷོབས་རྒྱལ་འགྲན་མེད་ནམ་མཁའི་ཐོགས་ (ཐོག་) དང་འདྲ། ལྷོབས་ཚེན་གནམ་ལྷགས་
མེ་མའདུང་འབྲུལ་འཁོར་འདྲ། འཕང་བ་དག་ལྷ་ཅན་གྱི་མི་ཡིས་འཕེན། སྟེག་པ་གཅོད་བྱེད་དག་

བཞེགས་གཞུགས་ལ་ལྗོད་ཀྱི་དབྱ་ཁམས་ཐལ་བའི་རྩལ་བཞིན་བརྒྱགས་པར་ཤོག། ཤར་དབྱ་སྤྱང་
མོ་མགོ་ལོག། སྤོ་དབྱ་སྤོ་མི། ལུབ་དབྱ་བྲག་གཡབ། ལྷང་དབྱ་དགེ་ཅེ་གཙོས་བྱས་པའི་དམག་སྤྱ་
ཇག་སྤྱ་རྒྱ་སྤོན་པའི་གནོད་བྱེད་ལམ་དབྱ་ལྷུང་བའི་ལྷེད་དུ་དོ་མ་ཡ། ཀེ་གི་སོ་སོ་ལྷ་རྒྱལ་ལོ།

ཤེ་ཁྱ་རིང་བོག་གི་བཤད་པ།

ཆད་ཕྱན་གྱི་བཤད་པ། སྤོ་(ཁྱ་)རིང་བོག་གི་བཤད་པ། ཉག་སྤྱར་མདའ་ཡི་བཤད་པ། ལི་ལུ་
རྒྱང་གི་བཤད་པ། སྤོ་ལོ་ནས་ཀྱི་བཤད་པ། རྒྱ་རས་དར་གྱི་བཤད་པ། སྤོན་པོ་རྩ་ཡི་བཤད་པ། དམར་
པོ་མའི་བཤད་པ། ལྷེ་མ་རྒྱུང་གི་བཤད་པ་སོགས་མང་པོ་ཡོད་པ་དཔེར་ན་ཁྱ་རིང་བོག་གི་བཤད་
པ་རྣམས་པ་ཡིན་ན། སྤྱར་ཁམས་སྤང་གི་ལྷགས་དང་གཅིག། ཚ་བ་རོང་གི་ལྷགས་དང་གཉིས། ཀོ་
འགོ་རོང་གི་ལྷགས་དང་གསུམ། ལྷགས་དེ་གསུམ་ལེབ་ནས་བོག་གཅིག་བརྒྱབ་སྤྱང་སྤྱང་སྤྱང་སྤྱང་སྤྱང་
སྤྱ་ཡིན་མ་ཤེས་ན། བརྒྱབ་མཁན་དམ་ཅན་མགར་བ་ཡིན། མགར་གཡོག་སྤྱ་ཡིན་མ་ཤེས་ན།
མགར་གཡོག་ཐེུ་རང་མགར་བ་ཡིན། སྤྱང་བརྒྱགས་རྒྱ་མཚོའི་གདན་ལ་བརྒྱགས། སྤོ་པ་རི་བོའི་
སྤྱང་ལ་འཇུགས། ཐོ་བ་ཀ་སྤོན་དགྲུང་ནས་གཡུགས། དང་བོ་ཐོ་གང་འཐེན་པ་དེ། རྣམ་ཀག་འདུག་
པའི་ཐོ་གང་ཡིན། དེ་རྣམས་ཐོ་གང་(དོ?) འཐེན་པ་དེ། མདུའུ་ཀག་འདུག་པའི་ཐོ་དོ་ཡིན། དེ་རྣམས་ཐོ་
གསུམ་འཐེན་པ་དེ། ཐོ་རང་ས་བསྐྱང་བའི་ཐོ་གསུམ་ཡིན། དེ་རྣམས་ཐོ་བཞི་འཐེན་པ་དེ། སྤོགས་
བཞི་དབྱ་བཞི་གནོན་པའི་ཐོ་བཞི་ཡིན། འཇབ་ལྷར་བལྟ་བའི་རྒྱང་ལེབ་ཡིན། ཟེ་འབྲུ་ལ་ཁའི་སོ་
པ་དགོས། མེ་རྒྱུད་སྤྱལ་གྱི་ཐག་པ་དགོས། སྤྱམ་པ་བྱ་ལྷུང་མཚུ་འདྲ་དགོས། ཤོག་ཤིང་གཤེར་གྱི་
(གྲིས་) བརྒྱབ་པ་འདྲ་དགོས། ཤོག་ལུང་ཆན་ཐག་སྤོ་ཚོགས་དགོས། སྤྱང་ནི་ནམ་མཁའི་འབྲུག་སྤོང་
འདྲ། མདུའུ་གམ་ལྷགས་ཐོགས་(ཐོག) འདྲ་དགོས། སམ་ཁ་(ཁའི) རི་ལ་རྒྱགས་(རྒྱག?) པ་
དང་། ལྷར་ཁའི་སེམས་ཅན་གན་ནས་གྲེལ། (འགྲེལ) ཀེ་གི་སོ་སོ་ལྷ་རྒྱལ་ལོ།

ཤེ་བོད་སྤོད་གྱི་བཤད་པ།

(སྤྱ་ཐོག་རིགས་གསུམ་དང་ལྷེ་དབང་གྲགས།)

མགར་གྱི་བྱ་དང་ལྷགས་གྱི་ཚ། མགར་བྱ་ལྷགས་ཚ། ཁྱ་རིང་སྤོད་ལྷར་སྤྱད་དུས་དབྱ་སྤྱ་རང་འཁོར་
དང་། འཕང་གཏོང་ན་དབྱ་བཞི་གཟེལ་(ཟེལ) གནོན་ཟེར། དེའང་། སོག་པོ་དར་ཐོག་རྒྱ་འབབས་
དང་། སོག་རུང་བརྒྱ་ཁ་དང་གཉིས། རྒྱ་སོག་གྲེ་མ་དཀར་ལིང་གསུམ། རུང་ལ་དཀར་ནག་ཁ་དང་
བཞི། རྒྱ་ཤིས་རབ་དཀར་ནག་ཁ་དང་ལྷ། འཇང་མདའ་མེ་རྩ་ལྷགས་སྤོ་དུག། སྤོད་མདའ་རིས་འཇག་
མ་ཁ་གཤག་བརྒྱན། ཉམ་དབྱིབས་དར་ཐོག་རྒྱ་འབབས་འདྲ། གསེར་ཕྱེ་སྤོ་མ་བརྒྱབ་པ་འདྲ། ལྷགས་
མདོག་ཁམ་ལ་ལྷགས་ཤ་རྒྱབ། སོག་གི་དར་ཐོག་རྒྱ་འབབས་དེས། འཁོང་ཉལ་ནས་ལངས་ལོང་མི་
གཏན་ཟེར། ལངས་ནས་འདྲོད་(འཕྲོས) ལོང་མི་གཏན་ཟེར། ཉམ་དབྱིབས་རྒྱ་བོའི་གཉེར་མ་འདྲ།
ཐོ་རྒྱང་མང་པོས་(མིའི) རྣམས་མཛེས་ཅན། སྤོད་རྒྱ་པད་མའི་དབྱིབས་དང་མཚུངས། ལྷས་ན་ཡིད་
དབང་འཕྲོག་པ་དང་། འཕང་ན་པ་རོལ་ནོན་པ་ཡི། བརྒྱ་ཁ་ཡི་སོག་རུང་ཟེར། རྒྱ་སོག་དབྱིབས་

འདྲེས་ལྷགས་རྒྱ་དཀར། ལ་ཡང་མི་གསལ་ལྟལ་མ་འབྲེལ། ལ་གཞུང་ཕྱེ་ལ་གྲང་ཚང་སློམ། བྱང་
གི་འབྲེལ། (འཕྲོང་) ལྷ་བདའ་ལ་མཁོ། ཤོད་རྒྱུང་འཛོམ་པའི་སློད་ཅིག་ཟེར། ལྷ་ལྷིས་རབ་དཀར་
པོ་སྐྱེ་རངས་མ། ལྷིས་རབ་ནག་པོ་ག་དགའ་མ། ལྷིས་རབ་ལྷ་བོ་དར་གས་ཅན། སློད་དེ་གསུམ་ག་
རྟོག་མདེལ་རྟོག་ཟེར། (གྲུ་བཞི་ལྷགས་སྟེ་རྒྱལ་དཀྱིས་ཅན། ཞེས་ཅེ་ནག་པོ་ལྷས་མོ་ལ། ལྷ་བཞིའི་
རིགས་དེ་དཀར་ལ་གས། ཞེས་ཞེས་རིགས་དེ་ནག་ལ་གས། ལྷ་མེད་ལྷགས་རུས་ཞོག་ལ་སྐྱས། འཇར་
མདའ་མན་རྩ་ལྷགས་སྟེ་དེ། ལྷ་དག་གི་ག་པོ་བདའ་ལ་མཁོ། ལྷ་དཀར་དཀར་བགད་པའི་སོ་ཞོ་ཞོ་འདྲ། ལྷ་
ནག་རུས་པའི་མཆི་མ་འདྲ། ལྷ་དཀར་ལྷགས་ལྷ་ག་མན་ཨོག་ལྷ་འདྲ། གཟེ་ཉེ་འབྱུང་རྩལ་པའི་སློད་ཅིག་
ཡིན། གཏད་པའི་འབེན་ཡན་མི་ཤོར་ཟེར། ལྷ་མདའ་རིས་འཇག་མ་ལ་ག་གས། དེ། ལྷགས་རྒྱ་བཟང་
ཞིང་གོ་ཚད་བྱང་། མདེལ་ཚང་སློམས་ཞིང་ (ལིང་) གཟེ་ལ་སྐྱེན། སིབ་གསེང་འཛོལ་མོ་བདའ་ལ་
མཁོ། ཟེར་བ་བཅས་ཡོད། ཡང་། སོག་གི་སྐྱ་སྐྱ་ལྷག་དེ། ལྷ་མ་གཅུས་སྐྱ་སྐྱ་ལྷག་འདྲ། ཟེར་བ་
དང་། ལྷ་ཡི་ལེ་སྐྱ་རུས་གསེར་དེ། མ་རྟུང་དཀྱིག་པས་སློད་ཅིག་ཡིན། ཤོད་གོས་ཚེན་སོག་གི་འཇར་
མདའ་ཡིན། ཟེར་བ། ཡང་། ལྷ་དམར་གྱིས་རྗེས་ཨོ་རུ་སོག། འམར་ན་མི་སོག་ཨོ་རུ་སོག། རྗེས་ལྷ་
མདེལ་བརྒྱགས་ཨོ་རུ་སྐྱ་ཟེར་བ་ (དེ་ཞན་གས་ཡིན་) བཅས་ཡོད།

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སློད་བཤད་སྟེར། ཨོམ་སྟེ་སྟེ་ (ཨོ་སྟེ་སྟེ་) བདེ་ལེགས་སྐྱ་གྲུང་ཅིག། ལྷ་དཀར་ལྷགས་རྒྱ་དང་ལྷ་མིན་
འབྲེལ་པའི་རུས། དག་ལྷའི་གོ་མཚན་སྐྱ་དགུ་མ་གཏོགས་པའི་ལྷ་རིང་མེ་མདའ་ཟེར་བ་ཡོད་མ་
སྟེ། བར་གྱི་གཉན་འམ་ (ནམ་) མི་དང་འབྲེལ་པའི་རུས། དག་ལྷའི་གོ་མཚན་སྐྱ་དགུ་མ་གཏོགས་
པའི་ལྷ་རིང་མེ་མདའ་ཟེར་བ་ཡོད་མ་ཡིན། འོག་སྐྱེགས་སྐྱ་དང་ས་བདག་འབྲེལ་པའི་རུས། དག་
ལྷའི་གོ་མཚན་སྐྱ་དགུ་ (མ་) གཏོགས་པའི་ལྷ་རིང་མེ་མདའ་ཟེར་བ་ཡོད་མ་སྟེ། མཚའ་མ་མི་འམ་
རུ་རུ་ལ་དམར་པོ་ནས། སོག་པོ་ཡེ་ལེས་སྐྱ་གཅིག་དེས། ལྷ་བ་དང་སློད་ཉིད། སློབས་དང་རྩ་འབྲེལ་
གྱི་དང་ནས་ལྷ་རིང་མེ་མདའ་ཟེར་བ་དེ་རྟུང་། ལྷ་དག་གི་སྐྱ་ལྷགས་དཀར་པོ་ལ། ལྷ་སློད་པད་མ་ཉིལ་ལ་
རྟུང་། ཤོད་དབུ་ནག་ས་ལ་བཀོད་རྩལ་རྟུང་། བར་གྱི་གཉན་ལྷགས་ལྷ་པོ་ལ། ལྷ་དང་པོ་རྟོག་ཉིད་ལྷ་ལྷ་
རྟུང་། ཚོས་དཀར་པོའི་བསྐྱར་པ་དར་རྩལ་རྟུང་། འོག་གི་སྐྱ་ལྷགས་སྐྱ་ལྷ་པོ་ལ། ལྷ་དང་བཟང་རྩ་སྟེན་
གས་ལ་རྟུང་། གདོན་དག་པོ་འཆམ་ལ་འབབས་བྱེད་རྟུང་། ལྷ་སོག་པོས་རྟུང་ལེ་དེ་གཡས་གཅུས།
སོག་མེས་བརྟུང་ལེ་དེ་གཡོན་གཅུས། ལྷ་རྩ་རིས་དར་སོག་རྩ་འབབ་ཡོད། ཅན་དན་ཤོད་དམར་གྱི་
དགུ་མདའ་ལ། དར་ལྷན་ལྷགས་དཀར་གྱི་སྐྱ་སྐྱ་བཞག་ཡོད། ལྷ་ཞིང་སློང་ཡབ་ལྷ་མ་གྱི་དག་ལྷས་
སྟེར། གཅིག། ཐབས་གྱི་རྩ་ཅེ་གཡས་པ་ལ། དབའ་པོ་སོ་རྒྱུད་སློང་གི་དག་ལྷས་སྟེར། ལྷིས་རབ་
ར་ཅེ་གཡས་པ་ལ། དབའ་མོ་མོ་རྒྱུད་སློང་གི་དག་ལྷས་སྟེར། གཅུས་འཛོར། གཅུས་གདན། གཅུས་
པོར་གསུམ། རིགས་གསུམ་མགོན་པོའི་དག་ལྷས་སྟེར། རུ་ཟམ་རྒྱལ་བའི་དཀྱིལ་འཁོར་ལ། གོ་
ཞོད་དམར་ནག་སློང་གི་དག་ལྷས་སྟེར། སོ་འཛོན་ལ་ཞའི་སྐར་ཚེན་ལ། ཡོ་འཇུལ་མེད་པའི་དག་
ལྷས་སྟེར། སོ་ལྷ་ཉི་མ་རང་གར་ལ། ལྷ་བ་མིག་གི་དག་ལྷས་སྟེར། དར་སྟེ་ཉི་ལྷ་ལ་སློད་ལ། ལྷ་

ལུང་རྒྱ་རམ་གོ་དམར་བརྒྱབ། ལྷ་རང་འཁོར་བརྒྱད་གྱི་དབྱ་ལྷན་སྐོར། མི་ཚང་པག་ཚོད་གྱི་ལྷོ་བ་
ལ། ལྷི་འཛེར་དཀར་སྐར་མ་བརྒྱ་ཤར་ཡོད། བད་སྤྱི་སྤྱི་སྤྱུལ་ནག་ཞག་པ་ཡོད། མེ་ལྷ་བརྒྱད་གྱི་དབྱ་
ལྷན་སྐོར། གཉིས། ཉག་པོ་རྗེས་གྱི་ལོ་རྒྱུས་མདོར་ཅམ་ཞིག་བཤད་ན། མེ་ལི་ལན་རྩ་དམར་པོ་རྩ་
ལི་ལན་རྩ་སྐོར་པོ། ས་ལི་ལན་རྩ་སེར་པོ། གསེབ་རྩུང་ལྷང་མའི་ཚར་བ། ཉིན་རྩུང་ལྷག་པའི་རྒྱལ།
བྲག་རི་དཀར་པོའི་སྤོད་རྩེལ། ས་བདག་རྒྱལ་པོའི་སྤོང་རྩེལ་སོགས་བསྐྱུ་ནས། རྗེས་ཚང་སྤྱིག་
པ་པིར་གཟུགས་ལ་བཀྲག་སྤྱེ། རྗེས་གཞིང་ལུན་རུབ་བང་མཛོད་ནང་དུ་རྒྱུགས་ཏེ། རྗེས་རྗེ་སྤིན་
པོའི་ལ་ཚོད་དེ་བཞག། མི་ཚོད་དཔུང་པས་རྩུང་ཞིང་ཁ་ཤར་དུ་བསྐྱར་ནས། སྤྱིག་ཆགས་དབྱགས་
འགྲུལ་ཐམས་ཅད། རྒྱག་དང་རྒྱག་ཟེར་ཞིང་ཉིན་མ་བདུན་ལ་འདུལ། གསུམ་ཉི་ཤུའི་དལ་དུག་རྗེས།
སུམ་རུའི་རེས་མོའི་དགྲ་སྐོར། བརྒྱད་རུའི་རེས་མོའི་སྐོར་སྤངས་སོགས། བཞི། དུག་རྗེས་རིལ་བུ་དེ་
འབས་ལ་ལྷུག། མདེལ་པར་རིག་པ་ཁ་སྐྱེར་བའི་ནང་། མདེལ་ཁོ་རྩེ་རྩེ་ལོལ་མ་དེ་ལྷུག། ལྷ། སུ་མེ་
མདེལ་རྗེས་སྤྱིག་བྱེད་དེས་རྩུང་སྤྱེ། རོལ་པོ་བཙོ་བརྒྱད་གྱི་དབྱ་ལྷན་སྐོར། རྩ་རོག་ལྷགས་གྱི་གཏུན་
ཁུངས་ནང་དུ། ཤ་ཁག་རྩ་སྤིན་བྲས་བའི་ནང་ན་རྗེས་ཚ་ཚ་འབྲུལ་བ་དེ་ལྷུག། ལྷུར་མཚུགས་ཅན་
གྱི་དབྱ་ལྷན་སྐོར། མདེལ་ཁ་གར་གཏད་ཁག་གི་ཚར་པ་འབབ། རུ་གར་འཇུགས་སྤིག་པའི་ན་བྱན་
འཁྲིགས། ལྷུར་མཚུགས་སེར་བུ་རྩུང་ལ་འགྲན། ཡོ་འཇུལ་མེད་པ་གཞམ་ལྷགས་ཐོག་ཚོད་འདུ། དས་
སྤོང་སྤོགས་ལྷ་ལེ་མི་འཕན་ (འཕེན་) ཀྱང། ལྷ་རིགས་རྣམས་གྱི་འབས་སྐྱུམས། འོག་སྤོགས་སྐྱུ་ལ་
མ་འཕོངས་ཀྱང། ལྷ་རིགས་རྣམས་གྱི་དབྱ་ཚེམས། བར་སྤོགས་གཉན་ལ་མ་འཕོངས་ཀྱང། གཉན་
རིགས་རྣམས་གྱི་སྐྱུ་གཟུར། དས་འཕན་ (འཕེན་) བར་བྱེད་པའི་དགྲ་པོ་ནི། ལྷོ་དབྱ་སྤོ་བོ། ལྷང་
དབྱ་མགོ་ལོག། བསྐྱར་དབྱ་ཉག་རོང། རྟོར་སེར་ཞིག་ཐོག་སེར་པ་བཞིན་དོན་དང་གདོན་དབྱ་བོ་
ཚེ་གེ་མོའི་སྤོང་ལ་རྟོབ་ (རྟོམ་) མ་ཡ། དཔུང་ལྷ་བོན་སྤོང་གི་སྐྱུ་འདུས་ལ། མགོན་པོ་བྱ་རོག་གདོན་
(གདོད་) ཅན་གྱི་དབྱ་ལྷན་སྐོར། ལྷམ་པ་གེ་སར་ཁོམ་གྱི་མེ་ཉལ། མགར་བུ་དམར་ནག་སྤོང་གི་
དབྱ་ལྷན་སྐོར། དུག་ཤིང་པར་བྱའི་ནང་དུ་བཏབ་ནས་དུག་རྗེས་རིལ་ལེ་དགྲ་སྐོར། འཇལ་པོར་སྤིན་
པོའི་གཟུགས་ཅན་ལ་འཇལ། སྤྱིག་སྤོད་མདེལ་དེ་ཁ་ལ་བཞག། ཅམ་རེ་ཞིག་དེ་ཅམ་མོ། །

༥༡

དའི་ལག་གི་གནམ་ལྷགས་ཁ་བོ་འདི། ཤོག་རྒྱལ་གནམ་ཁི་བཙན་པོ་དེས། ཤོག་རིགས་དམར་
ལེབ་ཚེན་ནས། ལྷུང་ནག་རོག་པོ་ཞགས་ལ་བཀྲག། ཤེལ་རང་དཀར་ནག་ཁ་གསུམ་གྱིས། ལྷོ་རོ་
དཀར་ནག་ཁ་གསུམ་བྱིན། འགས་གསུམ་འདས་པའི་ནང་མོ་ལ། ལམ་ལ་འགྲིམ་པའི་ལྷགས་དཀར་
གསུམ། ལམ་ལ་རྩུང་པའི་ལྷགས་ནག་གསུམ། ཤོག་པའི་ནང་གི་ཁ་ལྷགས་གསུམ། ལྷགས་སྐྱ་དགྲ་
དེ་ལག་ན་རྒྱང། ཤེལ་རང་མགར་བ་སྐྱར་དགྲ་དེས། ཉིར་དགྲའི་སུན་པ་འཁྲིགས་པའི་དུས། རྒྱུ་
པོ་གསུམ་ལ་མཉེན་རྩུང་བྲས། ཁ་བོ་གསུམ་ལ་མཛེས་རྩུང་བྲས། ཉག་པོ་གསུམ་ལ་དར་རྩུང་བྲས།
ཤེལ་སྐྱ་ཁག་སྐྱ་སྐྱ་དགྲ། དགྲ་གསུམ་ཉི་ཤུ་ཙ་བདུན་གྱིས། (གྱི།) རང་རྩུང་ཏེ་སྤོན་ལམ་
བཏབ། རྒྱག་གསོན་ལ་མི་ཤོར་བདེན་རྩོག་གྲུབ། རྟོལ་དུག་གི་སྤོར་སྤེབ་རྒྱབ། རབྱུང་པོ་ཁོས་

པའི་ལྷོ་ཚ་གཅིག་ལ་མོ་ཁྲིམ་པའི་ལྷ་ཟླ་གཉིས། ལྷ་མིན་ཁྲིམ་པའི་སོལ་བ་གསུམ། ལེ་སྒང་ཅུ་བ་
ཨ་རག་དང་། ལག་ཏུ་ལྷག་ཅུ་བ་མར་ཁྲ་དང་། འདྲེད་ཆགས་ཅུ་བ་མ་མའི་ཁྲག་དུག་གསུམ་རྩམ་
ཀྱི་སྒྲོང་ལྡེབ་བྱས། རིན་ཆེན་གསེར་གྱི་སྒྲོང་ལ་བཅུད། ཟངས་ལྷགས་དདུལ་གསུམ་མདེུ་སྒྲོད།
དམར་པོ་སློག་གི་རྩ་ལ་སྒྲོན། སྒྲོ་མཉེན་ལྷགས་ཀྱི་འཁྲུལ་འཁོར་སྐྱོར། འཕམང་ན་ཐར་མེད་གནམ་
ལྷགས་ཐོག་དཀར་ནག་མཚམས་ལ་རྟོ་མ་ཡ།

ཧྲ

ཁྲ་རིང་སྤྱིག་པ་འབྲམ་རྫོང་འདི། ལྷགས་སྤྱ་དགུ་བཅུ་གོ་དགུ་ཡོད། འཕམར་བྱེད་འཐེན་བྱེད་
བཅུ་དགུ་ཡོད། ལག་ཏུ་ལྷགས་སེ་རོང་ནག་པོ་ལ། ལྷ་དང་ལྷགས་བྱས་དཀར་གཉེན་ལ་བྱས། སྤོ་
འཛེར་དཀར་པོ་དདུལ་ལ་བྱས། མདེུལ་ལྷགས་རིན་ཆེན་གསེར་ལ་བྱས། མདེུལ་ཅེ་དཀར་པོ་སྒྲོང་
ལ་བྱས། རྩེ་པོར་རིན་ཆེན་ཟངས་ལ་བྱས། དམར་པོ་སློག་གི་རྩ་ལ་སྒྲོན། དུག་རྩམ་ཉ་ལ་ནག་པོ་
ལ། དུག་སྤྱ་དགུ་ཡི་སྤེབ་སྒྲོང་བྱས། སྤོ་བདུད་ཁྲིམ་པའི་མངལ་ཅུ་ལ། སྒྲོན་ལམ་བཏབ་པའི་ཟླུ་
དཀར་དང་། སྤོ་བདུད་དར་བའི་མངལ་ཁྲག་དེ། དམ་ཚིག་ཉམས་པའི་ལྷ་སེར་གཉིས། ལྷ་བདུད་
ཁྲིམ་པའི་རུས་པ་ལ། ལས་སྒྲོན་ལོག་པའི་སོལ་བ་གསུམ། དུག་སྤྱ་དང་ཁྲག་སྤྱ་དགུ། སྒྲོན་
སྤྱ་དགུ་བཅས་ཉེར་བདུན་དེ། དགའ་རབ་བདུད་ཀྱི་སྒྲོན་ལམ་བཏབ། སྒྲོང་གསུམ་འཛེམས་པའི་
ལས་སྒྲོན་འགྲིག འཕམང་ན་ཐར་མེད་གནམ་ལྷགས་ཐོག་ཁྲག་དཀར་གཏོར་ལིང་རྒྱ་མཚོ་ལྷ། ད་
ལེན་ཁྲོད་ལ་རྟོ་མ་ཡ།

ཧྲ

ཐོག་མདའ་བྲག་རི་དགུ་གཏོར་འདི། མཐའ་མེད་རྒྱ་མཚོའི་པ་རོལ་ནས། ལགས་ཀྱི་ལྷན་ལྷགས་
དཀར་པོ་གཅིག་དྲོ་ལྷན་སྤྱག་མའི་ཁྲ་བ་གཉིས། ཐེུ་རང་སྤྱན་དགུའི་ལྷ་ལྷགས་བཅས། ལྷགས་
སྤྱ་དགུ་ལ་རུབ་བརྟུང་བྱས། ཐེུལ་མགར་མཁས་པ་མི་དགུ་དེས། ཉེར་དགུའི་སྤྱག་ལ་ལྷན་བརྟུང་
བྱས། ཁྲག་སྤྱ་དགུ་ལ་རར་ཅུ་བྱས། སྒྲོན་སྤྱ་དགུ་དང་དུག་སྤྱ་དགུ། འབྲུང་བཞིའི་བཅུད་ཀྱི་རྩ་ལ་
བསྒྲོན། དགའ་རབ་བདུད་ཀྱི་སྒྲོན་ལམ་བཏབ། ལྷིང་བཞི་འཛེམས་པའི་རྟེན་འབྲེལ་འགྲིག འཕམང་
ན་ཐར་མེད་བདུད་ཀྱི་མཚོན།

Appendix 2. The Two Me mdar dgra lha bkod pa

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༡། མཚམས་སྐྱུར་ནི་རྒྱ་རྩོམ་ལ་དག་ལྟ་བུ་བསྐྱོད་ (བཀོད་) ལ་ནི། གཡམས་ལ་ཐབས་ཀྱི་རུ་ཚེ་ལ།
མགོན་པོ་མོ་རྒྱུད་ (བརྒྱུད་) དག་ལྟ་བུ་བཀོད། གཡམས་ལ་ཤེས་རབ་རུ་ཚེ་ལ། ལྷ་མོ་མོ་རྒྱུད་ (བརྒྱུད་
) དག་ལྟ་བུ་བཀོད། འར་ལྷན་ལྷགས་ཀྱི་སྐྱུ་གྲུ་ལ། རྒྱ་ལོག་གཏོང་ཅན་དག་ལྟ་བུ་བསྐྱོད། (བཀོད།) ལྷ་ལ་
(སོ་ལ་) དག་སྐྱོད་དམ་འབྲིན་ལ། ཞིང་སྐྱོད་ཡབ་ཡུམ་དག་ལྟ་བུ་བསྐྱོད། (བཀོད།) ལྷ་ (སོ་) མིག་མཚོང་
བ་དབུག་ (དབུགས་) ལྷ་དལ། ལྷོལ་གཏོང་མོ་མོའི་དག་ལྟ་བུ་བསྐྱོད། (བཀོད།) མེ་སྐྱམ་ཚོང་འཛིན་
མོ་ཉ་ལ། མགར་བ་དམར་ནག་དག་ལྟ་བུ་བསྐྱོད། (བཀོད།) རབ་མདའི་དུག་སྐྱུལ་འགྲུག་ཡག་ལ། ལྷ་
བདུད་ནག་པོའི་དག་ལྟ་བུ་བསྐྱོད། (བཀོད།) རྩ་པོར་ཚ་ཚ་འབྲུག་པ་ལ། འདར་ལེན་བཅོན་ཚོད་དག་ལྟ་
བསྐྱོད། (བཀོད།) ལྷ་མེ་མདེས་རྩམ་འཕྲོར་བྱེད་ལ། རོལ་པ་བཅོམ་བརྒྱུད་དག་ལྟ་བུ་བསྐྱོད། (བཀོད།)
ཁོ་མདེལ་གནམ་ལྷགས་ཐོག་དམར་ལ། ལོག་བདག་ཤེལ་གིང་དག་ལྟ་བུ་བསྐྱོད། (བཀོད།) ལྷ་སྐྱོད་
གཡུ་འབྲུག་ར་རོ་ལ། ལྷོ་ལ་གཐུབ་བདུད་དག་ལྟ་བུ་བསྐྱོད། (བཀོད།) ཁོ་ཐོ་དུག་གི་བར་མཚོང་ལ།
གཐུབ་ཚེན་བརྒྱུད་ཀྱི་དག་ལྟ་བུ་བཀོད། ལག་ལྷ་རྩེ་ལྷོ་ལྷོ་འཐམ་ལ། གཏོང་མོ་བཞིའི་དག་ལྟ་བུ་བསྐྱོད།
(བཀོད།) གཞལ་པོར་གཐུབ་རྩིག་ར་ཚོད་ལ། ལག་ཐ་སྤོན་པོའི་དག་ལྟ་བུ་བསྐྱོད། (བཀོད།) མཚམས་
རྩམ་ཏུར་བྱམ་སྐོག་བདག་ལ། ལྷ་སྐྱར་ཉེར་བརྒྱུད་དག་ལྟ་བུ་བསྐྱོད། (བཀོད།) འབྲུག་པོ་ཤིང་གི་དུག་
མཐའ་ལ། ཤོ་ཉ་ལས་བྱེད་དག་ལྟ་བུ་བཀོད། ལྷུས་ (གཙུས་) འཛོམ་གཞམ་ལྷགས་རར་མ་ལ།
འདའ་བརྟེན་རྒྱག་པའི་དག་ལྟ་བུ་བཀོད། ལྷུང་ལྷུང་འཇའ་ཚོན་གར་ཡག་ལ། འར་བསྐྱུང་ལྷ་ཡི་དག་
ལྟ་བུ་བསྐྱོད། (བཀོད།) ལྷུང་ལྷུང་དུག་གི་ཞགས་ཚོད་ལ། འག་པོ་བདུད་ཀྱི་དག་ལྟ་བུ་བསྐྱོད། (བཀོད།)
རྩམ་ལྷག་གཏུག་པ་སྐོར་གྱི་གཞུགས། ལས་བདག་གཉན་གྱིས་དག་ལྟ་བུ་བཀོད། མདེལ་ཁེབ་རུ་སྐྱལ་
རྩོ་སྐྱུར་ལ། ལྷུང་སྐོར་ལོ་ལྷའི་དག་ལྟ་བུ་བསྐྱོད། (བཀོད།) མདེལ་ (མདེལ་) ལྷག་ཉ་མོ་འབྲུག་ཡག་འདི།
ལྷུ་བདུད་རྩོར་ (གཏོད་) བའི་དག་ལྟ་བུ་བསྐྱོད། (བཀོད།) འབྲུང་བ་ལྷ་འདུམ་མེ་སྐྱོགས་འདི། འདུག་
ལྷའི་དག་ལ་བདུབ་པའི་ཚེ། ལྷུང་པོ་ལྷ་པོ་ཐལ་བ་བརྒྱག། ཡི་ཤེས་ལྷའི་སྐོར་དུ་བསྐྱེམས། འདི་ལྷར་
དག་ལྟ་རྟེན་བཅུག་བཞིན། འདམ་ཉམས་དག་ལ་དམགས་ (དམག་) འདྲེན་ན། ཞིང་བཅུའི་དག་
པོ་ཚམས་ལ་ཐོབ། ལག་སོལ་པོ་གསོལ་པོ་ལྷ་གསོལ་པོ། ལག་ལ་བརྒྱུད་ལྷ་བསང་དག་ལྷའི་ཆ་ཅན་
དུ། ལག་ཏུ་བའོད་སྐྱེས་སྐྱུལ་འདོད་ཀྱི་ག་རྩ་ཡི། ཉམས་མཚར་རྒྱལ་དུ་གང་དུན་གྱིས་ལ་ལ། ལག་ཏོང་
(ཞོད་ས་) བར་མཚིས་ན་དམ་ཅན་སྐྱུང་མར་བཞགས། འདག་བའི་དག་ལྟ་བུ་མི་དང་མ་འབྲལ་ཅིག། ལ་
རོལ་དམ་ཉམས་སྐོག་གི་གཤེད་མར་ཤོག།

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༡༡ ། དེ་ནས་མེ་མདའ་ལ་སྐྱ་སྐྱ་འབོད་པ་ནི། གྲེ་གྲེ། བོང་དུ་སྐྱུན་བྲངས་དག་ལྟ་གསོན། ལྷོད་
རྣམས་མཚོད་པའི་བྱིན་རྒྱལས་གྲིས། ལྷ་སྐྱོར་ཡོན་གྱི་བདག་པོ་ཡི། མེ་མདའ་དག་ལྟ་བུ་བཞོད་པ་ནི།
གསེར་གྱི་མདངས་ལྡན་ལྷ་ཟེ་སེར། དུང་གི་འོད་ལྡན་ཟེ་ཚྭ་དཀར། བོང་བའི་དཔལ་འཕྲོག་སོལ་བ་
ནག། ཚད་བཞི་སྐྱར་བའི་འཕྲུལ་འཁོར་གྱི། ལྷ་ནི་གཡུ་འབྲུག་ཁེངས་པ་འདྲ། ལྷོ་བས་གྱི་གནམ་
ལྷགས་ངར་ཡང་འཕྲོག། བ་རེལ་སྤོང་འགམས་སྐྱ་ཆེན་ལ། དག་ལྟ་བོག་འབྲུག་སློག་གསུམ་བཞོད།
དབྱིབས་ལེགས་ལྷུབས་ལ་སྐྱ་དགུ་མཛེས། གཙུས་འཕྱར་ལྡན་པའི་རུ་གཉིས་གཟེངས། དམིགས་
པར་གཏད་པའི་སོ་འཛིན་དང་། དེ་ནིད་བལྟ་བུད་ན་ལྷང་སྤ། མེ་རྟ་གཞུག་པའི་མཚོར་པོའི་ལྷུབས།
འཛིན་བུད་ལྷགས་སྐྱམ་རྩ་མོང་དབྱིབས། མེ་ལེན་སྐྱ་དང་སྐྱ་ཁེབ་ལ། ལྷི་ནང་གསང་བའི་དག་ལྟ་
བཞོད། སྤིད་ཚད་རེས་མེད་རྣོ་ལྷགས་ལས། ལྷུབ་པའི་མེ་མདའི་སྐྱབ་ལྷུ་ལ། ལྷ་བརྟན་མི་ཞིགས་
དག་ལྟ་བཞོད། བསྟོ་བསྟོ་སྤང་བའི་དག་ལ་བསྟོ། ཆས་ཆས་སྤང་བའི་དག་ལ་ཆས། དག་ཁམས་
མ་ལུས་ཆམས་ལ་པོབ། །

Appendix 3. Photographs



Figure 4 Photograph by Alexandra David-Neel, “Chefs Kampa de la région de Ling”, DN 723,
© Ville de Digne-les-Bains



Figure 5 Photograph by Alexandra David-Neel, “Chefs de la région de Kanze”, DN 766a2.
© Ville de Digne-les-Bains



Figure 6 Photograph by Sven Hedin, 1901, "Tibetaner i Transhimalaya", 1027.2433, published with the permission of the Sven Hedin Foundation at the Museum of Ethnography, Stockholm

Figure 7 Photograph by Heinrich Harrer, 1949-50, "Soldaten in alter Riterrüstung bedanken sich bei den Ministern, nachdem sie bei der Siegerehrung weisse Schleifen erhalten haben", VMZ 400.07.84.001, Ethnographic Museum at the University of Zurich. Author's note: I believe that the *smon lam rta pa* are carrying 'dzam drags matchlocks



Figure 8 Photograph by Frederick Spencer-Chapman, 1936, "Soldiers in old-fashioned armour [Lhasa]".
© The British Library Board 1043(320). Author's note: this photograph shows three members of the *gzim chung pa* (traditional Tibetan foot-soldiery) on the roof of the Jokhang at Lhasa, supporting themselves on their *'dzam grags* guns



Figure 9 Photograph by Joseph Rock, "Five Tibetans, armed for defence and hunting, wearing only single tunic-like garments. They are from Pashetenga in the Tebu region of Gansu. 1926", N-2006-C, W124098_1, Harvard-Yenching Library. Author's note: from left to right, the second, fourth and fifth men are sporting matchlocks. The others have added prongs to modern rifles

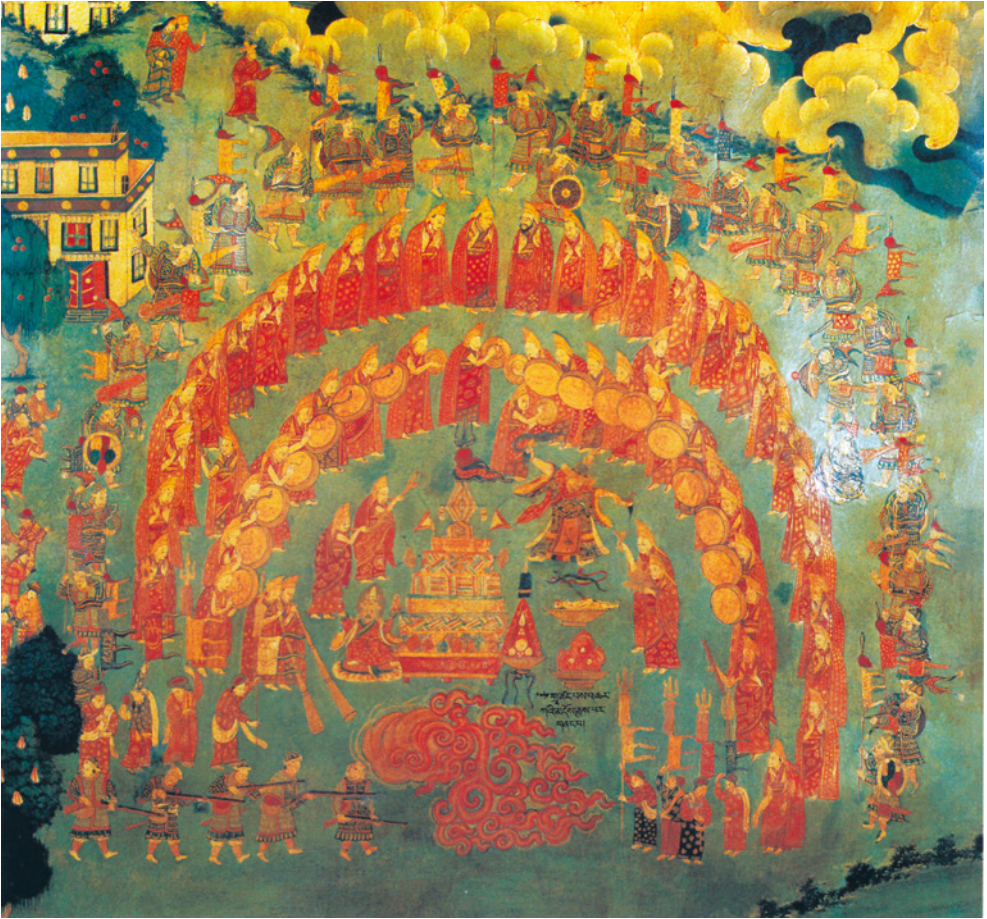


Figure 10 Photograph from *Pho brang po ta la'i ldebs bris ri mo'i 'byung khungs lo rgyus gsal ba'i me long*, *A Mirror of the Murals in the Potala*, Beijing; Jiu zhou tu shu chu ban she, 2000, 102. The original caption reads: "Style: the Menthang Times: 1690-1694, Monks of Namgyal Dratsang in the Potala at a performance of 'driving out evil spirits'". Author's note: this is a depiction of *me mda'* (at the lower left) in late seventeenth century in Lhasa and a mural painter's conception of them

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The Dorjéling Armoury in the Potala According to the Fifth Dalai Lama's *gsung 'bum*

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Abstract Although the government established through the alliance of the Géluḳpa (Dge lugs pa) and the Khoshud in 1642 took its appellation from the Ganden Palace (Dga' ldan pho brang/Ganden Phodrang) at Drepung ('Bras spung), the symbolic seat of power of this government was the Potala, at the same time fortress, administrative centre, earthly copy of the celestial palace of Avalokiteśvara, and official residence of the Fifth Dalai Lama. Less known, however, is that the Potala also came to symbolise military readiness. It acquired this new martial function in 1667, when an armoury, called Dorjéling (Rdo rje gling), was set up at the base of the White Palace. The Fifth Dalai Lama memorialised its establishment with a poetic text, which is included in volume nineteen (*ma*) of his collected works. This paper examines this text, which provides information both on the contents of the armoury and on the logic employed to justify the creation of spaces dedicated to military preparedness within a palace that was fast becoming one of the most revered sites in the Tibetan sphere.

Keywords Buddhism. Army. Tibet. Weapons. Dalai Lama. Ganden Phodrang. Armoury.

Summary 1 Introduction. – 2 The Context. – 3 An Analysis of the Preamble. – 4 Conclusions. – 5 The Text and Its Translation.



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1 Introduction

It is said that in the fifteenth century, just as the appearance of siege artillery was transforming warfare in Europe,¹ Pope Pius II (Enea Silvio Piccolomini, r. 1458-64) was so enthusiastic about the new technology that he not only encouraged other European sovereigns to acquire gunpowder weapons, but he also named two cannons after himself, the 'Enea' and the 'Silvio', and one after his mother, the 'Vittoria'.² Such fervour may seem misplaced in a religious figurehead, but it should be recollected that "in Christian Europe, gunpowder weapons were seen to provide justice".³

In order to accomplish this task, Christianity even provided artillerymen with their own dedicated protector, Saint Barbara. She had been chosen for this role because her own father, who had denounced her as a Christian, effectively condemning her to martyrdom, had been killed by a lightning that produced a thunderous boom. The Saint's protective powers were such that her effigy was often represented on guns and protective gear, and her name was invoked in battle to obtain safekeeping from injury and death. However, other saints' effigies were also depicted – such as a Saint George on a shield kept in the Museum of the Middle Ages (Musée de Cluny) in Paris – similarly to apotropaic mantra and Buddhist images on Tibetan helmets [fig. 1ab].⁴

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1 Many publications discuss the appearance of siege artillery in Europe and the transformations it entailed both in warfare and general civil life. The pathbreaking study on the topic is Roberts, "The Military Revolution. 1560-1660", originally delivered as a lecture in 1955 and first published in 1956, then again in revised form in 1967 (Roberts, *Essays in Swedish History*, 195-225) and in 1995 (in Rogers, *The Military Revolution Debate*, 13-35). This article has elicited and still sparks a fervid debate; among the publications reinforcing its arguments or taking exception with them, one may bring to notice Parker, *The Military Revolution*; the several articles in the above-mentioned *The Military Revolution Debate*; Ayton, Price, *The Medieval Military Revolution*; Black, *Beyond the Military Revolution*; Boot, *War Made New*; DeVries, "Gunpowder Weaponry"; Hoffman, "Prices, the Military Revolution"; Stone, "Technology, Society, and the Infantry Revolution".

2 DeVries, Smith, *Medieval Military Technology*, 151.

3 DeVries, Smith, *Medieval Military Technology*, 151.

4 The image of Saint George is surrounded by a border inscribed with the words: "Hilf Gott Du Ewiges Wort dem Leibe hier, der Seele dort Hilf Ritter Georg" (Help, God, eter-



Figures 1a-b

A shield representing St. George kept at the Musée de Cluny in Paris (Cl.1956) and a helmet decorated with Buddhist images and mantra.

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The comparison between these two images illustrates that there is an evident similarity in the approach to warfare of Buddhism and Christianity. However, while knowledge of the involvement of Christianity with arms and warfare is not new, and the examples mentioned above are but two of the many instances that have been the object of study for many years (suffice it to think of the gigantic body of research on the Crusades) in this paper I propose to inquire about Tibetan Buddhism's connection with weapons and war. This strand of research is rather novel, as arms are not commonly associated with Tibetan culture, unless one is concerned with ritual weapons, used symbolically in a variety of rites.⁵ However, not only Buddhism has had a major influence on Tibetan society throughout the entire course of this country's history, but it also influenced the nation's politics in multiple ways,⁶ and especially so during the period of the Ganden Phodrang (Dga' ldan pho brang, 1642-1959), when the Dalai Lamas were at the head of a predominantly ecclesiastical state.⁷

It is thus important to explore more in depth the involvement of the Ganden Phodrang, the paramount political entity arisen within Tibetan Buddhism, with warfare and weapons.⁸ In particular, research on weapons raises important questions that have not been yet addressed in the context of Tibetan history, namely whether the introduction of advanced firearms caused a military revolution, i.e. a

nal word; the body here, the soul there; help, knight George), <https://www.musee-moyenage.fr/collection/oeuvre/targe-saint-georges-dragon.html>. For various examples of images of saints and other religious symbols on armour and weapons in Christianity, Buddhism, and other religions, see La Rocca, *The Gods of War*.

5 The typical Tibetan ritual weapon is the dagger or *phur bu* (or *phur pa*, Skt. *Kīla*), usually a short, three-sided, sharp-pointed knife used to slay symbolically the effigy of the enemy which a ritual aims to defeat. On the *phur bu* see Huntington, "The *phur-pa*"; Heller, Marcotty, "Phur pa"; Cantwell, Mayer, *Early Tibetan Documents on Phur pa*, and, more recently, Grimaud, Grimaud, *Les Dagues Rituelles*.

6 Already in the imperial period (seventh-ninth century CE) Buddhist kings such as Trisong Détsen (Khri srong lde btsan) financed enterprises to support the Dharma, particularly the construction of monasteries, and also subsidised various projects to foster the spread of Buddhist knowledge, such as the Sanskrit-Tibetan dictionary *Mahāvvyutpatti* and the debate of Samyé (Bsam yas). After the fall of the empire, political governance, whether regional or (more rarely) pan-Tibetan, was always in association with religious establishments, either by direct administration from a monastic site, such as Sakya (Sa skya), through an alliance between aristocratic families and specific religious traditions, such as the Pakmo drupa (Phag mo gru pa) and the Lang (Rlangs) clan, or through the legitimation of political power by religious authorities.

7 While the government of the Ganden Phodrang was not entirely comprised of monks, and indeed one-half of its officials were non-ecclesiastic, in general the status, prestige and influence of clerical figures, especially if considered reincarnations (*sprul sku*), were predominant, and thus the Ganden Phodrang is often described as an ecclesiastical polity, or even a theocracy.

8 On the Ganden Phodrang and its employment of warfare, see Travers, Venturi, *Buddhism and the Military*.

series of changes that affected the country's society, stimulated political and financial reforms, and ultimately contributed to the centralisation of government. However, to even begin to ask these questions, it is necessary to understand more about the state of weapons in Tibet, and to assess their availability, technology, quality, and other issues such as whether they were imported or self-produced, etc. In order to do so, in this paper I shall examine a seventeenth-century document, composed not long after Tibet was largely united under the Buddhist government that we call Ganden Phodrang.

2 The Context

As it will be shown, the text is a preamble to the general catalogue of what appears to be the first official state arsenal of the Ganden Phodrang, a repository called the Dorjéling armoury (*go mdzod rdo rje gling*).⁹ The manuscript was composed by the Fifth Dalai Lama Ngawang Lozang Gyatso (Ngag dbang blo bzang rgya mtsho, r. 1642-82), the figure whose strategic alliance with the Khoshud Mongols rendered possible, after a hiatus of circa three hundred years, the unification of a large part of the Tibetan plateau under a single government. Although research on this Dalai Lama has been copious,¹⁰ his views on weapons and warfare have begun to be explored only recently.¹¹ Still, examination of documents in which he comments on military activities is critical to achieve a better understanding both of the Fifth Dalai Lama as a historical figure and of the Ganden Phodrang as a government. The papers in question provide a measure of his level of involvement with military affairs, and contribute to portray a fuller picture of his multilayered efforts at creating a state in which religious and political aspects were delicately balanced.

In addition to these reasons, this particular document is especially significant because, at least in the current state of our knowledge, widespread diffusion and use of matchlock muskets in Tibet occurred approximately in this period.¹² Thus, this preamble allows the read-

⁹ This text is also mentioned in the article by Tashi Tsering Josayma in this issue.

¹⁰ Among the many publications on the life and work of the Fifth Dalai Lama the publications by Karmay stand out: *The Illusive Play; Secret Visions*; "The Fifth Dalai Lama and his Reunification of Tibet"; "The Gold Seal". Other important political aspects of this head of state have been discussed by Schwieger, "The Dalai Lama and the Emperor of China", and Yamaguchi, "The Sovereign Power".

¹¹ Among the exceptions can be included: Sperling, "Orientalism"; FitzHerbert, "Rituals as War Propaganda", and Venturi, "To Protect and to Serve"; "Mongol and Tibetan Armies on the Transhimalayan Fronts"; "On Reconciling Buddhism and Violence".

¹² According to La Rocca, *Warriors*, 198, "firearms were probably introduced into Tibet gradually during the sixteenth century", however, "early documentation for the

er to estimate, in broad terms, the Fifth Dalai Lama's knowledge of weaponry in general, and his awareness of the importance of weapons in the wider political context of which he was part. Understanding this last issue is especially crucial, as the establishment of his religious-political government had been possible thanks to warfare waged by the Khoshud on his behalf. Since the preamble mentions some of the military equipment that was stored in the armoury, it also provides a fixed point of reference on the type of weapons in use at this time – or, at least, of the weapons with which the Dalai Lama was familiar.¹³

Before proceeding to analyse the preamble, we should mention that its composition is mentioned with a short notice in the autobiographical diary of the Fifth Dalai Lama. This records that the preamble was composed on the nineteenth day of the seventh month of the Fire-Sheep year, that is at the height of the summer of 1667. The notice also briefly illustrates the salient details about the armoury. First, it calls it “the new Dorjéling armoury”, indicating that it had just been inaugurated. Considering all the internecine wars that had punctuated life in Tibet in the first half of the seventeenth century, it seems unlikely that no armoury had existed before this one. Perhaps what was novel about the Dorjéling armoury was it being the first official depository of military gear of the Ganden Phodrang proper. As for the reasons for establishing the new armoury, the autobiography mentions that it was founded because until then there had been no sheltered area where to store weapons (*sngar go cha rnam la gra sgrig par bkab gcig mi 'dug*), again hinting at the possibility that this might indeed have been the first official armoury of the Ganden Phodrang. Also, its position at the base of the Potala (*rtse pho brang*)¹⁴

use of firearms in central Tibet appears to be lacking before the late seventeenth century” (199).

13 For an overview of the chronological apparition of weapons terms in a sample of Tibetan sources, see Maurer in this issue.

14 Construction on the first portion of the Potala, known as the “White Palace” (*pho brang dkar po*) began in 1645, under the supervision of the regent Sönam Raptan (Bsod rnam rab brtan, also known as Sönam Chöpel/Bsod rnam chos phel), and was concluded, at least for what concerns the exterior structure, in 1647 (Alexander, “Zhol Village”, 109) or 1648 (Chayet, “The Potala”, 45). The red palace (*pho brang dmar po*), partly conceived as mausoleum of the deceased Fifth Dalai Lama, was founded in 1690 and built between 1691 and 1694 (Chayet, “The Potala”, 50). An eighteenth-century mural painting depicting the Potala and the surrounding neighbourhood of Zhol, examined by André Alexander (“Zhol Village”), depicts a large, four-story structure called Makchi khang (*dmag spyi khang*), that is said to have been used as “the old local government army headquarters” (“Zhol Village”, 113). It is possible, but by no means certain, that this structure may have been part of – or may entirely correspond to – the Dorjéling armoury in question here; on this, see The Treasury of Lives, <https://treasuryoflives.org/institution/Armory>. The Dorjéling armoury was known and used as a point of reference at least until the early twentieth century, as we know that the Army Head-

might have been a novelty, perhaps indicating a move from a previous site. If this was the case, the new location reflected the decision to establish a stable military arsenal in the immediate vicinity of the residence of the Dalai Lama, in a strategic location from which both the protection of the administrative machine of the Ganden Phodrang and the general security of Lhasa could be ensured.

The entry in the autobiography also specifies that the armoury was built by the Dalai Lama's regent, at the time the *jaisang dépa*¹⁵ Trinlé Gyatso (*jaisang sde pa* 'Phrin las rgya mtsho), who was in charge of administrative affairs between 1660 and his death in 1668. He was well versed in astronomy and astrology, since well before his appointment as regent he had instructed the Fifth Dalai Lama in these disciplines. His hand in the decision to establish the armoury on that exact day can be seen in the fact that the text specifies the time of its founding had been calculated to be at the auspicious conjunction of the planet Mars and the constellation Aśvinī. In keeping with the propitious circumstances, the Dalai Lama had also composed the preamble on the very day in which the armoury was founded, thus immediately giving an official imprimatur to this institution. Incident-

quarters (*dmag spyi las khung*), founded 1913, were located "in a building opposite the Dorjéling armoury" (Travers, "Monk Officials", 218).

15 Trinlé Gyatso (d. 1668) was the second of the regents of the Fifth Dalai Lama. His tenure in this position began in 1660, and concluded with his death eight years later (Petech, "The Dalai Lamas", 134). In the two-year interval between the death of the previous regent Sōnam Rapten and the official appointment of Trinlé Gyatso, the Dalai Lama seems to have largely exercised direct secular control, with the exception of the circa four-month tenure – often not officially counted – of Nangso Norbu (a nephew of Sōnam Rapten) as *dépa*. The title *jaisang*, with which Trinlé Gyatso is styled here, was awarded to him in 1637 directly from Gushri Khan (Richardson, "The Decree", 451). This term is a rendition of the Chinese *zǎi xiàng* 宰相 'minister', and was later adopted as a Mongolian honorary title for clan chieftains, eventually coming into use also as personal name (see Sárközi, "Toyin Guisi", 87 fn. 76 and Dungkar, *Tshig mdzod chen mo*, 871). Other epithets of Trinlé Gyatso derive from the estate to which his family was attached, that of Nyangdren (Nyang bran), with its attached village of Drongmé (Grong smad), in the area just north of Lhasa. Thus he is also referred to as Nyangdren Drönmépa (Nyang sbran gron smad pa), *dépa* Drongmépa (*sde pa* Sgrong smad pa) and Nyangdren *dépa* (Nyang bran *sde pa*). He began his career as a monk official (*las sne*) of the Ganden Phodrang and became the personal assistant of the Fifth Dalai Lama in 1632 (Karmay, *Illusive Play*, 105). He seems to have had direct experience of war, as in 1641 he led troops against the army of Tsang (Gtsang), and his own father, Gopa Trashi (Sgo pa bkra shis), was injured by a cannon (or catapult? Tib. *sgyogs*) strike in 1642 (Shakabpa, *Moons*, 345). Later, in 1663 (or 1662? The pattern of dating is confusing in this section of the Fifth Dalai Lama's autobiography), when he was already acting as regent, he led a military expedition against the area of Zichenthang (Gzi chen thang) in Kham (Khams), that presumably was rebellious to the authority of the Ganden Phodrang (Karmay, *Illusive Play*, 476-7). A short biographical note focusing on the chronology of his regency can be found in Petech "The Dalai Lamas", 134; a more detailed biography, compiled on the basis of the Fifth Dalai Lama's autobiographical diary, can be found in Jones, "Depa Trinle Gyatso": <https://treasuryoflives.org/biographies/view/Depa-Trinle-Gyatso/P3649>.

tally, it should also be pointed out that Trinlé Gyatso is said to have led a small body of troops in 1641 and again in 1663, and thus it may be speculated that his military experience gave him an understanding of the importance of an organised and well-stocked armoury.

One last word about terminology, which is – I believe – one of the core issues that will transpire from this volume. In the context of the sentence above, the term *go cha* can be intended in its broader connotation, i.e. ‘weapons, (military) tools or implements’, rather than its more restricted meaning as ‘armour’.¹⁶ In fact, the list of items provided in this brief note includes not only arms and armour from India, China, Hor and Sog, as well as from the nomads of Kham, but also armour for mounted troops; standards in different colours; and even light, easy-to-pack equipment for travel. In sum, Dorjéling was a true armoury, a depository not only of arms and armour, but of all implements necessary for war.

3 An Analysis of the Preamble

We turn now to the preface itself, tucked in volume nineteen (*ma*) of the collected works of the Fifth Dalai Lama. Its full title is “A fierce Rain Shower. The First Uninterrupted Poetic Preamble to the Book Chapter on Military Supplies (*g.yul chas*) of the Dorjéling Armoury of the Great Potala Palace” (*Pho brang chen po po ta la'i go mdzod rdo rje gling gi g.yul chas rnam kyid deb ther le tshan gyi 'go brjod sdeb sbyor rgyun chags dang po gtum po'i char 'bebs sogs*). The title highlights the poetic style of the preamble, which begins with two initial statements in verses of fifteen syllables; then the majority of the document continues in the more typical nine-syllable metre.¹⁷ The two opening statements are offered in bilingual Sanskrit and Tibetan versions (with the Sanskrit being transliterated in Tibetan script), and set an unabashedly combative tone, displaying a defiant attitude and a strikingly graphic violent language. The first intimates that “Not being satisfied by merely making garlands with the heads and necklaces with the entrails of the killed enemy, [you] wear their skins drenched in dripping blood in the guise of a canopy, [and] trample on

¹⁶ On the term *go cha* and its various meanings see La Rocca, *Warriors*, 268, where the two main meanings of this term are given as: 1) “armor, harness, gear, implements, tools”, and 2) “weapons”. Also see the article by Maurer in this issue.

¹⁷ From the thirteenth century onward, the Indian *kāvya* style has exercised a strong influence on Tibetan poetry, imposing highly codified rules regarding metric, metaphors and technical structure. Because of the complex arrangements it required, *kāvya*, or *nyen ngak* (*snyan ngag*), as it came to be called in Tibetan, “was composed almost entirely by those with an academic background” (Jackson, “Poetry”, 375); its employ by the Fifth Dalai Lama is well documented.

the crushed sludge of their corpses" (*log 'dren bsad pa'i mgo 'phreng rgyu ma ga shar byas kyang ma tshim par / khrag 'dzag pags rlon lding stabs gyon nas bam ro 'dam star brdzi ba yi*). The second describes how a *rākṣasa*,¹⁸ manifested through the empowerment of a wrathful form of Jampel Dorjé ('Jam dpal rdo rje, Skt. Mañjuvāra, an esoteric form of the bodhisattva of Wisdom, Mañjuśrī) will make the heads of the enemy fall to the ground with his shining, sharp sword. This language clearly does not represent a defeatist stance or any sort of shame or embarrassment of the efforts made to win a war. Likewise, the remainder of the text is also constructed not as a mere accolade for the opening of the armoury, but particularly as an argument to prove that Tibet, as the sole country that has preserved the original Buddhist legacy, is fully justified in fortifying itself by establishing an army and founding an armoury.

This case is carefully and methodically made in the main poem, which can be divided into six sections: 1) an invocation; 2) a panegyric of the virtues of the Ganden Phodrang; 3) a description of the army; 4) a discussion of the contents of the Dorjéling armoury; 5) a final justification of the importance that Tibet is a military power; 6) a colophon. I shall now proceed by analysing each separate section.

(1) The invocation makes an appeal to several deities; first Makzor gyelmo (Dmag zor rgyal mo),¹⁹ and Bektsé,²⁰ both among the major protectors of the Gélukpa doctrine, who are here extolled as remarkable defenders; then a wide range of other minor demons, including *kanyen* (*bka' gnyan*), *tsengö* (*btsan rgod*)²¹ and *nöjin* (*gnod sbyin*), who are in fact all among the retinue of Makzor gyelmo,²² and finally the class of war deities in general (*dgra lha*).²³ All are asked to protect Ti-

¹⁸ Tib. *srin po*, sometimes translated as 'ogre', a category of flesh-eating demons possessing superhuman abilities.

¹⁹ Makzor gyelmo, also known as Makzorma, is one of the main forms of Penden Lamo (Dpal ldan lha mo) or Śrīdevī, a main protectress of the Geluk school of Buddhism and particularly of the Dalai Lamas; she is also considered the protector of all of Tibet. See de Nebesky-Wojkowitz, *Oracles and Demons*, 23 and related chapter.

²⁰ The term *beg tse* is said to mean "hidden shirt of mail" (Das, *Dictionary*, 876), and this *dharmapāla*, strongly connected to war, is in fact depicted as wearing a protective coat of mail. On Bektsé see Heller, "Etude" and de Nebesky-Wojkowitz, *Oracles and Demons*, 88-93.

²¹ Although many lesser protectors of the Buddhist doctrine are designated by the epithet *tsengö*, 'wild demon', and thus as a collective name *tsengö* identifies a category of minor defenders of Buddhism, the *Tsengö* par excellence is a companion of the goddess Penden Makzor Gyelmo (Dpal ldan dmag zor rgyal mo), a warlike form of Penden Lhamo. On *Tsengö* see de Nebesky-Wojkowitz, *Oracles and Demons*, 25, 29; Bunce, *An Encyclopaedia*, 72.

²² See de Nebesky-Wojkowitz, *Oracles and Demons*, 25, 32.

²³ The term *dgra lha*, generally translated as 'enemy deity', 'warrior deity', or simply 'war/battle deity' is generally regarded as identifying a set of deities whose purpose is to fight against the enemies of Buddhism; however, there are several unresolved ques-

bet and forever defend and reduce the power of the malicious, heretic sentient beings. As in the opening statements, the language here can also be graphic. An example is the sentence in which the *tsengö* are compared to “sentinels who distinguish between white and black actions” and are described as beings who “ask to drink the delicious warm blood, the life essence of the enemies of the doctrine holders of the religious government of the Land of Snow” (*gang gi bka' snyan btsan rgod gnod sbyin che / dkar nag las rnams 'byed pa'i mel tshe mkhan / gangs can chos srid bstan 'dzin phas rgol gyi / srog snying khrag dron ro bda'i skyems su gsol /*).

(2) The section that extols the virtues of the government of the Ganden Phodrang describes it as the only government committed to “the two indivisible laws” (*khriims gnyis zung du 'jug pa*), the secular and the religious one; a government able to become the basis of happiness for all living beings on account of its respect for the supreme tradition of the Buddha; and a great lamp able to dispel the robbers who steal joy and happiness from men. In addition to these advantages, the government’s military power is said to “spark more and more the appearance of the golden age” (*rdzogs ldan gsar pa'i snang ba ches cher sbar*).

This sentence is insightful, because it directly links military power to the acquisition of the Buddhist ideal of *kṛtayuga*, the golden age in which the Buddhist doctrine reaches its apogee, being perfectly developed and absolutely authoritative. Moreover, the implication is that because the military is in the service of a government in which the Gélukpa are the dominant element, it is the Gélukpa who can lead to the new *kṛtayuga*, and the military in their service is a crucial support. Additionally, the military is described with the expression *rgyal thabs yan lag rnam bzhi'i dpung tshogs nyis*, that may be rendered as ‘the two armies of the four districts’, or possibly ‘the two armies that are four-branched’. In the first case, the text may be seen as tracing a historic link with the Tibetan empire and its regional and military divisions into the four horns of Ü (Dbus) and Tsang;²⁴ in the second, the troops are envisioned, poetically at least, as divided in four traditional branches of Indian warfare, comprising infantry, cavalry, elephant-mounted troops and chariots. This same configuration is also attributed to the troops of the *cakravartin*, the

tions concerning the actual origins and significance of this term, partly also derived from the fact that several different spellings are possible: *sgra bla*, *sgra lha*, *dgra bla*, *dgra lha*. In this regard, see Gibson, “Dgra-lha. A Re-examination”. On this term see also FitzHerbert, “Rituals as War Propaganda”, 84 fn. 106.

24 On the subdivision of Central Tibet according to the placement of military divisions, see Uray, “The Four Horns of Tibet”; Stein, “Tibetica Antiqua 2”, 264-6.

ideal universal ruler.²⁵ In either case, the military in service of the Ganden Phodrang receives a double validation: from a religious perspective, as a vital aid toward the goal of reaching *kṛtayuga* under the guidance of the Gélukpa, or as a duplicate image of the troops of the *cakravartin*; and from a historical viewpoint, through its association with the Tibetan empire.

(3) Only at this point, after having spelled out clearly its role, the army is described. It is portrayed as being made up of two components comprising all four districts of the kingdom (*rgyal thabs yan lag rnam bzhi'i dpung tshogs nyis*).²⁶ The two sections, mounted troops (*rta dmag*) and infantry (*shugs drag dpung*, literally 'mighty troops'), are lyrically extolled. Of the former, its horses are highlighted; their hoofs rise dust and make the earth shake (*bsnun pa'i sa chen 'dar ba rdul gyi 'tshub*); while the latter is compared to a hurricane-like army of gods that will "release the life-force of the enemy in great numbers" (*pha rol dgra de srog phral grangs de snyed*). Overall, they are described as "a large group, fierce and strong" (*dpa' gtum rtsal ldan tsho chen*) and, intriguingly, as "a host of young men who live with a royal stipend" (*rgyal po'i zho shas 'tsho ba'i stag shar tshogs chen*).

The crux of the sentence here is the word *zho shas 'tsho ba*, a term that in older dictionaries is often rendered as 'soldier'.²⁷ This meaning appears for the first time in Friedrich Schröter's *A Dictionary of the Bhotanta, or Boutan Language*, the first known Tibetan-English dictionary, published in Serampore in 1826, but in fact a translation of Father Orazio Della Penna's early eighteenth century Tibetan-Italian dictionary.²⁸ Schröter's translation defines *zho shas 'tsho ba* as

²⁵ The four-fold configuration of the *cakravartin's* army appears, among others, in the *Lalitavistara sutra* (Goswami, *Lalitavistara*, 21).

²⁶ Ü, Tsang, Kham and Amdo (A mdo), and Ngarikhorsum (Mnga' ris khor gsum).

²⁷ Jäschke, *Dictionary*, 479 has: "a publican Cs., a soldier *Schr.*, prob. any officer that receives salary or pay"; similarly, Das, *Dictionary*, 1076, states: "one who subsists by the wages he earns; according to *Schr.* a soldier, any officer that receives pay". It can be seen that both Jäschke and Das refer to Schröter for the meaning of 'soldier'.

²⁸ Please note that in a previous article (Venturi, "Mongol and Tibetan Armies", 45 fn. 47) I erroneously wrote that Della Penna's dictionary was Latin-Tibetan and contained 25,000 entries. The correct description is found in Petech, *I missionari italiani*, vol. 1, xciii, where it is stated that the well-known Tibetan-Italian dictionary comprised the translations of about 35,000 words and was compiled between 1717 and 1732, also taking advantage of the Father's residence at the monastery of Se ra. In addition, Petech recognised that two separate manuscripts of an Italian-Tibetan dictionary kept at the Anglican Bishop's College in Calcutta (one written on Tibetan paper and another penned by different hands on English paper), were also likely to be outcomes of the labour of the Capuchin Father. However, at least in 1952, when vol. 1 of *I missionari italiani* was published, Petech had not personally seen any of these manuscripts, and his conclusions were based on a 1912 eyewitness account by the Reverend Felix of Antwerp ("Remarks on the Tibetan", 379-82). Today, a PDF copy of the catalogue of all the manuscripts kept at the Calcutta Bishop's College can be consulted online, and it can be seen that all three manuscripts (catalogued as XLIX, L, LI) were found to be missing already

“armed; a quantity or number of soldiers, an army; hired, having a salary”.²⁹ Here, the last definition is the closest one to this term’s literal meaning, which is ‘livelihood’ or ‘subsistence’ (*tsho ba*) by wages or remuneration (*zho shas*).³⁰ If we accept this expression’s literal meaning, it would entail that army soldiers were paid, or otherwise received some form of living provision. However, it was the opinion of Petech and others that the Tibetan-Italian dictionary of Della Penna was based on the Tibetan literary language he had studied during his stay at Se ra. This sows doubts as to the effective practice of remunerating soldiers in the seventeenth century, as it is more likely that the Fifth Dalai Lama here simply used a term he knew from his classical readings. Jäschke, for example, notes that the word appears both in the *Tengyur* (*Bstan 'gyur*) and in Tāranātha’s oeuvre.³¹

A source not too distant from the time of the Fifth Dalai Lama, instead, asserts that soldiers were not paid, but conscripted by *corvée*. In his *Relazione*, Ippolito Desideri³² wrote:

As Tibet is a peaceful realm, it is not customary to have permanent standing armies, with the exception of a number of competent soldiers that are the guards and escort of the king [Lha bzang khan]. Another regiment, also of soldiers, is always kept at Gar-

in 1993; see <https://bishopscollege.ac.in/uploads/media/Manuscripts.pdf>. Several years later, the two that were handwritten by Della Penna (corresponding to ms. 2 and 3B of Petech’s *I missionari italiani*, vol. 1, xciii-xciv) were successively discovered in unspecified circumstances and in an undisclosed location in Calcutta and brought to Italy; see Lo Bue, “A Note”, 90 and Engelhardt, “Between Tolerance and Dogmatism”, 62 fn. 96; Bray, “Missionaries, Officials”, 35. In 2016 they were exhibited to the general public at an exhibit in Rimini, Italy; see <http://www.italiatibet.org/2016/01/05/un-trono-tra-le-nuvole/>); however, at the moment they appear to be inaccessible.

29 Schröter, *A Dictionary of the Bhotanta*, 383.

30 Gedun Tharchin, [*Tibetan-Tibetan Dictionary*] glosses *zho shas 'tsho ba* as “*gzhan gyi las ka byed mkhan ming ste / nus mthus 'tsho ba'am gla zan gyis 'tsho ba'o*”, while *Bod rgya tshig mdzod chen mo* (1996), 2404, defines it as “*rang gi stobs sam nus pas 'tsho ba*”. Note that *zho sha* means both ‘capability’, ‘ability’ and ‘wage or salary’.

31 In addition, yet to be published entries for *zho shas 'tsho ba* in the *Wörterbuch der Tibetischen Schriftsprache* derive from the *vinaya* and other sections of the *Kangyur* (*Bka' 'gyur*), apparently confirming the literary origins of this term. I am grateful to Petra Maurer for checking these references for me.

32 The well-known Jesuit missionary whose sojourn in Lhasa, from March 1716 to January 1721, coincided with some of the most eventful political circumstances of the eighteenth century in Tibet. His travel diary has been edited and annotated by Petech, *I missionari italiani*, vols. 5, 6 and 7; for an English language biography, see Pomplun, *Jesuit*.

tok³³ and at Gna-rì-Giongár,³⁴ for fear of the invasions of the Tartars from Dzungaria, that is, independent Tartary. However, when there is the need to make war, every family has to provide a soldier, and if there is no one able to take arms, they must provide for one at their expense. In war time the soldiers do not receive a pay from the prince, and neither they are provided by him with weapons, munitions, horses and food; on the contrary all of this is the charge of each community and province, that must provide all.

Desideri's assertion contradicts squarely the literal meaning of the expression *zho shas 'tsho ba*, and without further data it is impossible to determine if the Fifth Dalai Lama used the term with reference to the militarily glorious imperial period or, for example, only to a portion of the troops.³⁵ In addition, given the tumultuous period that followed the death of the Fifth Dalai Lama, it may very well be possible that the army was organised very differently in 1667 and in the late 1710s-early 1720s.

Another item that requires further scrutiny is who provided the remuneration - if indeed there was any. The text indicates "the king" (*rgyal po*), but who was "the king" in this case? It is still imperfectly understood which figure, among the Dalai Lama, the Khoshud Khan and the regent or *dési*, effectively controlled political - and thus also military - authority within the Ganden Phodrang in this early period. Schwieger argues that the Fifth Dalai Lama definitely perceived himself "as the spiritual and secular ruler of Tibet",³⁶ as testified both by his writings and by the construction of the Potala on the same site where was situated the palace of Songtsen Gampo (Srong btsan sgam po), the forefather of the Tibetan empire. To this must be added, however, that his first regent was originally appointed to relieve the Dalai Lama of part of the burden of managing both religious and political affairs,³⁷ and thus it is likely that the *dési*'s involvement in secular matters was at a more detailed level than that

33 Sgar thog in Tibetan, situated at 31° 45' N 80° 22', was one of the main trade markets in Western Tibet, due to its position on the trade route between Central Tibet and Ladakh. Its commercial importance did not go unnoticed by the British, that, as a result of the Younghusband expedition, demanded its inclusion among the sites to be opened for international trade (together with Gyantse in Central Tibet and Yatung in the Chumbi Valley, near Bhutan).

34 This is to be read as a phonetic transcription of Mnga' ris Jungar, i.e. the northern portion of Western Tibet, near the territories controlled by the Dzungars, and thus in need to be protected.

35 In fact, there could have been various types of soldiers coexisting at the same time: some conscripted as *corvée* service and others receiving wages.

36 Schwieger, *The Dalai Lama and the Emperor*, 52.

37 Richardson, "The Decree", 442, 444.

of the Dalai Lama himself, who may have intervened just in the final stages. In addition, within the context of the 'priest-patron relationship' (*mchod yon*) the regent was normally referred to as the 'priest'. Hence, it may be hypothesised that the "king" here may refer to the Khoshud khans, who had been heavily involved in the military conflicts sustained by the Ganden Phodrang in this period.³⁸ Concerning the Khoshud Khans, it is at least certain that their political authority diminished with time, particularly after the death of Gushri Khan (1655) and the subsequent dilution of the Khan's authority among multiple descendants.³⁹

The last piece of significant information about the army in this section concerns its ethnic composition, which was very heterogeneous, comprising people from different corners of Central Asia and of the Tibetan plateau. This was expected, as the unification of Tibet under the Dalai Lama was achieved thanks to the indispensable aid of the Khoshud Mongols. Thus, the troops are said to have included "Heroes moving as swift as lightning: Turushka, Hor, [warriors from] upper and lower Amdo and Kham, northern nomads, etc." (*glog ltar 'khyug pa'i dpa' bo tu ruška / hor dang mdo khams stod smad byang 'brog sogs*), all "having endless languages and customs" (*skad dang lugs srol mtha' klas*).

Interestingly, people from Central Tibet are not mentioned. It may be that the soldiers from "the two armies of the four districts" (*yan lag rnam bzhi'i dpung tshogs nyis*) cited in an earlier passage are taken for granted and therefore are not repeated here. Alternatively, their absence could perhaps be interpreted as a sign that the majority of soldiers came from Amdo, Kham, Northern Tibet, and the Turco-Mongol regions of Inner Asia rather than from Central Tibet.

(4) The central core of the text presents the actual contents of the armoury. Unfortunately this section is less factual than one would wish, and it may be presumed that indications such as the quantity of items stored, their condition, their material, and their quality would be listed in the actual catalogue of the armoury. Still, the preface gives at least a generic indication of what was stored in here, even though the items are recorded in a disorganised fashion. For clarity, we can divide them into four groups: a) armour and protective gear; b) weapons; c) other military implements; and d) non-military provisions.

³⁸ See Venturi, "To Protect and to Serve". Gushri Khan personally commanded the campaigns of 1642 and 1644, and his descendants participated in many of the following campaigns.

³⁹ Documents analysed by Schwieger testify to the fact that at least after the death of Gushri Khan, the Khoshud khans often acted "by the order of the Dalai Lama" (*The Dalai Lama and the Emperor*, 56).

To begin with, both new and old equipment were kept at Dorjéling. The preface lists by name the *rgya byi*, *dmār* (likely short for *dmār yu/g.yu*), and *'bal*, as well as the *g.ya ma*, *skya chen*, *li ting* and *me ru*, all apparently “handsomely arranged”.⁴⁰ These names identify the seven main typologies of lamellar armour [fig. 2], as listed in the sixteenth century manual known as *A Treatise on Worldly Traditions*,⁴¹ which also enumerates the various sub-typologies of each category.⁴² Today, the various kinds of typologies and sub-typologies are but names to us, and any differences between the numerous categories, either in construction technique, material, region of production, or aesthetic appearance remain unclear. Given the plentiful number of variations (the seven major types of lamellar armour include sixty-one different subtypes) it is possible that the distinctions among them were very minor and almost imperceptible to the non-adepts.

Lamellar armour was constructed by joining together small metal plates to each other with long, narrow strips of leather⁴³ and thus it is not surprising to read that the armoury also contained a store of straps (*sgrog*), presumably kept in case repairs were needed. Other protective equipment conserved there also included the ten kinds of rigid helmets [fig. 3],⁴⁴ of which the Dalai Lama, perhaps out of unfamiliarity with the topic, mentions explicitly only one, the *li gzha'*.⁴⁵ Finally, the armoury contained armour for the protection of horses [fig. 4], such as the *cang shes* breed, considered to be the finest in Tibet, and shields (*phub*) of various sizes [fig. 5].

⁴⁰ La Rocca, *Warriors*, 260, 265.

⁴¹ Completed in 1524, its full Tibetan title is *'Jig rten lugs kyi bstan bcos las dpyad don gsal ba'i sgron me zhes sgrags pa bzhugs so*. It discusses and evaluates the quality of different types of artefacts, from religious ones such as statues, books, cymbals and bells, to objects of daily use, including cloth, tea and porcelain. It also includes a section on weapons and armour, transcribed and edited from different versions in La Rocca, *Warriors*, 253-63.

⁴² All the sub-typologies are listed in La Rocca, *Warriors*, 265.

⁴³ See a technical description of their construction in La Rocca, *Warriors*, 51.

⁴⁴ The ten types of helmets are listed in *A Treatise on Worldly Traditions*; see La Rocca, *Warriors*, 266. Like armour, helmets were assembled with metal plates, in this case wedge-shaped and bent into an arch shape.

⁴⁵ According to *A Treatise on Worldly Traditions*, the correct name for this type of helmet is *gzha' li*.



Figure 2 Lamellar armour and helmet. © The Metropolitan Museum of Art, New York. Bequest of George C. Stone, 1935 (36.25.53a,b)



Figure 3 The only known extant example of a Tibetan copper helmet. Private collection, USA



Figure 4 A rare complete example of classic Tibetan shaffron. © The Metropolitan Museum of Art, New York. Purchase, The Collection of Giovanni P. Morosini, presented by his daughter Giulia, by exchange; Bashford Dean Memorial Collection, Funds from various donors, by exchange; and Fletcher Fund, by exchange, 1997 (1997.242d)



Figure 5 A typical type of Tibetan shield, made of concentric cane, slightly domed, and with a metal boss.
© The Metropolitan Museum of Art, New York. Purchase, Ochs Sulzberger Gift, 2005 (2005.145)



Figure 6 Tibetan short sword or knife with a steep point, eighteenth-nineteenth century. The Metropolitan Museum of Art, New York; Bequest of George C. Stone, 1935 (36.25.1462a, b)

As for weapons, the first two items listed are *tségö* (*rtse rgod*) knives⁴⁶ [fig. 6] and daggers (*phur pa*). Mention of blades with short-handles, more useful in hand-to-hand combat than in a war context, and particularly of the last item, which is normally used in a ritual context, may betray to a certain extent the unfamiliarity of the Dalai Lama with the subject at hand. Further down in the text, after having discussed miscellaneous items, the list of arms continues, this time including the *'phrul sgyogs me*, a term that may be translated as 'matchlock' or, more generically, 'artillery' [figs 7a-7c], but that as with most other weapons' names, and particularly the terms for firearms, is liable to multiple interpretations depending on the context and the period. Luciano Petech, for example, translated it alternately as "artillery fire"⁴⁷ and also "cannon" [fig. 7b-c].⁴⁸ In his "Tibetan-English Glossary of Arms and Armor Terms", La Rocca interprets the cognate expressions *sgyogs* and *sgyogs kyi 'phrul khor* as "cannon, mortar, a war-like engine to shoot darts or fling stones".⁴⁹ In an early twentieth century context, it was translated as "artillery machine" giving emphasis to the production of the first automatic guns.⁵⁰

This term, then, brings to the fore the vast question of the identification of weapon names, that often remain unchanged even as technology progresses, rendering it difficult for the historian to visualise accurately what kind of object is exactly being described. The most apparent cases concern firearms and their evolution; as new mechanisms were introduced and found their way into Tibet, the terms often remained the same, and thus terms such as *me mda'*, possibly literally indicating an arrow ablaze with fire, came to signify various types of mechanic guns, from the early matchlocks to today's pistols.

The last armaments mentioned in the preamble are arrows [fig. 8] that can travel a mile (*dpag⁵¹ chen mda'*), weapons called *lcags zhol*, which according to La Rocca's glossary are a type of non-projectile, hand-held weapon,⁵² and swords (*ral gri*, [fig. 9]),⁵³ the glowing blue light of which, the Dalai Lama says, is considered an ornament of the troops (*ral gri'i 'od sngon 'phro la dpung rgyan*).

46 La Rocca, *Warriors*, 274.

47 Petech, *China and Tibet*, 16 (*me skyogs*).

48 Petech, *China and Tibet*, 132 (*me skyogs*). Notice, however, that *me skyogs* is also the name of a ladle used to add coal to the fire, or a "coal shovel" (Jäschke, *Dictionary*, 417).

49 La Rocca, *Warriors*, 280.

50 Venturi, "The Thirteenth Dalai Lama", 492, 502, 504.

51 From: *dpag tshad*, a measure of length generally translated as 'fathom' or 'mile'; *dpag chen* is, perhaps, a 'long fathom' (the form *dpag chung* also exists, and Jäschke, *Dictionary*, 326 defines it as "500 fathoms").

52 La Rocca, *Warriors*, 273.

53 On the variety of *ral gri* swords see the glossary in La Rocca, *Warriors*, 275-6.



Figures 7a-c

It is hard to identify specific types of artillery in Tibet; these illustrations show some of the different varieties used. Figure 7a: One matchlock wall gun. National Museum of Nepal, Kathmandu. Photo by Donald La Rocca | Figure 7b: Two Tibetan iron cannons, allegedly seized during the second Nepal-Tibet War. National Museum of Nepal, Kathmandu. Photo by Donald La Rocca | Figure 7c: A Tibetan leather cannon. National Museum of Nepal, Kathmandu. Photo by Donald La Rocca



Figure 8 Tibetan arrowheads. © The Metropolitan Museum of Art, New York. Gift of Jeremy Pine, 2012 (2012.147.9-12)



Figure 9 A Tibetan sword with 'hairpin pattern' on the blade. © The Metropolitan Museum of Art, New York. Bequest of George C. Stone, 1935 (36.25.1458a)

Also kept in the armoury were different types of non-combat military equipment. These included victory banners (*rgyal mtshan*), tassels (*dom*), and decorated drums (*rnga*); as well as division standards (*ru mtshon*) and pennants (*ba dan*). The existence of these items points to a certain level of sophistication and organisation in the military already at this early stage. It seems that the *dom* tassels, for example, used as a decoration for horses, may have pointed to different ranks among the soldiers. Drums point to the usage of instruments to call, rouse to arms, round up, etc., while pennants and division standards indicate there were platoons, etc. (possibly organised according to the Mongol system based on multiples of ten).⁵⁴

Last, the list includes a variety of non-military items that were nonetheless indispensable for the smooth operation of a campaign: beautiful white tents (*gur dkar lhun po*) to pitch in the centre of a camp (*phru ma*), other tents, canopies (*lding gur*),⁵⁵ and even bowls for food.

This portion illustrating the contents of the armoury concludes with a brief summary, almost a colophon, that explains the choice of the name Dorjéling for the armoury, referring to the catalogue as “the book to aid the memory of the well-filled by taxes (*dpya yi rab gtams pa*), meaningful and renown island [that is] solid like a vajra, the armoury of the universally respected (*mang bkur*) great government of the Land of Snow” (*gangs can mang bkur rgyal khab chen po yi / go mdzod rdo rje lta bur sra brtan gling / grags pa don ldan dpya yis rab gtams pa'i // brjed byang deb ther*). This raises the tantalising possibility that taxes in support of the army were already collected in 1667, but this question must also remain open until further research.⁵⁶

(5) The last part of the poem provides a rationale to justify Tibet's role as a military power. Two interconnected lines of reasoning accomplish this task. First, Tibet is recognised and praised as the repository of Buddhist religion, a fount from which genuine Buddhism springs. Secondly, the country's history is depicted in a way that supports a worldview according to which Tibet is the legitimate heir of the Buddhist traditions that have disappeared in India, and as such is the only country able to show to all nearby regions the correct path to salvation. Using quotes from canonical texts, the Fifth Dalai Lama

⁵⁴ Tibetan army divisions according to multiples of ten already appear in the mid-seventeenth century code known as *zhal ice bcu drug*; on this see Travers, “The Tibetan Army”, 258-9.

⁵⁵ An illustration of the *lding gur*, lit. ‘suspended tent’, can be found in Lange, *An Atlas of the Himalayas*, 53; it shows a tent protected by a larger, suspended canopy.

⁵⁶ Detailed research on taxation in the earlier period of the Ganden Phodrang remains a *desideratum*. An initial analysis of official documents which may shed light on the topic suggests that military taxes were certainly levied in the eighteenth century, and that they could be so burdensome that taxpayers often preferred to flee the area; see Bischoff, “Right There”, 13.

establishes the factors that determine that Jambudvīpa was destined to dominate all other continents, such as its being the land where all the thousands of Buddhas of the good *kalpa* have appeared or will appear, as well as the place where a *cakravartin* arose.

Following this premise, he explains that armies arrived and inflicted such a heavy defeat onto India and Buddhism that even nearby places like Kashmir and Nepal became filled with wrong views and “at present the best system of the doctrine” (*deng sang bstan srol legs gnas*) can be found only in Tibet, where holy men have congregated. As Tibet is “the sole place where the doctrine of the *Jina* spreads” (*rgyal ba'i bstan pa'ang bod yul kho nar dar ba*) it is the point of reference for all neighbouring states that desire guidance in the Buddhist path. This confers on Tibet an especially powerful position vis-à-vis the nearby polities, that in their quests to originate governments “from which arise benefits and happiness without exception” (*phan pa dang bde ba ma lus pa 'byung ba'i gnas*) can only be guided by the Land of Snows.

Finally, Tibet is defined both from a mythological and a geographical viewpoint. First, the well-known myth that the country was once an ocean that eventually became covered with a forest of *Sāl* trees is reiterated. Then, the extent of Tibet is defined by enumerating its districts. The language of the text, however, is rather ambiguous, and the list could be interpreted either as indicating the districts that comprised Tibet at the time the country originated, i.e. when the ocean dried up and the areas covered with *Sāl* trees became manifest, or as a way to specify the districts that the author, the Fifth Dalai Lama, saw as rightfully belonging to Tibet. The question is intriguing, and I am inclined to suggest that both were the same in the eyes of the Fifth Dalai Lama: the borders of the country covered by *Sāl* trees at the dawn of the ages and the boundaries of the Ganden Phodrang coincided, in no small part thanks to him.

The list begins and ends in Central Tibet, as if to reiterate the fundamental historical role of this area. From here it turns to the west, grouping together Purang (Pu rangs), Mar yul (misspelled Mang yul) and Zanskar (Zangs dkar); a second group of three areas further north-west, including Khotan (Li), Gilgit (Gru sha, *sic*) and Baltistan (Sbal sde, *sic*); and the three districts of upper and lower Zhang zhung, around mount Ti se or Kailasa; altogether forming Ngari khorsum (Mnga' ris 'khor gsum). Moving east, in Dokham (Mdo khams) it counts one region, and names it “lower Kham” (Smad khams);⁵⁷ in Domé (Mdo smad), one region labelled Yarmo thang (G.yar mo thang), and another designated as the plain of Tsong kha (Btsong kha), all

⁵⁷ It appears that Mdo khams and Smad khams are synonyms. On the nomenclature of Kham and Amdo also see Yang, “Tracing the *Chol kha gsum*”.

three together comprising the three ranges of lower Dokham (Smad mdo khams). At last, returning to the centre of the country, he lists Wuru (Dbu ru) and Yoru (G.yo ru) in Ü, and Yéru (G.yas ru) and Rulak (Ru lag) in Tsang.⁵⁸ From this last group the focus narrows down to Lhasa, the place where the god of men would arise in the lineage of the Licchavi;⁵⁹ with its temple of the Rasa trulnang (Ra sa 'phrul snang), the eight-spoked wheel in the sky, the three hills of the protective lords of Lhasa,⁶⁰ Chakpori, Marpori and Bongwari (Lcags po ri, Dmar po ri, Bong ba ri),⁶¹ and most of all the high mountain of Avalokiteśvara with its mansion of complete victory, the Potala.

(6) Thus, this geographical portrait of Tibet appears to have two functions. First, it spells in specific detail all the regions that the Fifth Dalai Lama saw as part of Tibet. These rather strikingly coincide with the farthest extent of imperial Tibet, including areas that had not been within Tibetan control since the seventh century, such as the oasis of Khotan, and other remote regions whose contacts with Central Tibet were by this time extremely sporadic, such as Balti and Gilgit, which had been gradually Islamicised for several centuries. Notwithstanding this, the Great Fifth envisioned the Ganden Phodrang as the legitimate successor of the Tibetan empire, and throughout the rest of his reign acquiesced to several different military campaigns that were waged also in an effort to reclaim territories at the outer fringes of the plateau. Among these may be included the campaigns against Bhutan in 1668, Kham in 1674-75 and against Ladakh in 1679-84, all occurred after the inauguration of the Dorjéling armoury. Naturally every military campaign of the Ganden Phodrang was occasioned by distinctive sets of circumstances and different reasons, but judging from the Fifth Dalai Lama's description of the ideal extent of Tibet, it seems likely that an aspiration to reconstitute the glories and territorial magnitude of the Tibetan empire must be added to the mix.

58 The classic article on the four horns of Central Tibet is Uray's "The Four Horns"; for more work on this topic see Hazod, "Imperial Central Tibet".

59 This *kṣatriya* clan, originally active around the town of Vaiśālī and regarded as one of the first to follow the teachings of Śakyamūni (several important donors of the Licchavi clan supported the activities of Gautama), is held in special consideration in Tibet because it is believed that the first Tibetan kings, in particular Nyatri tsenpo (Gnya' 'khri btsan po), originated from this group. On this see for example Roerich, *The Blue Annals*, 36, 46; also Rockhill, *The Life of the Buddha*, 203, explains that the Licchavi clan was believed to be related to the Śākya clan.

60 These are respectively Vajrapāṇi, Avalokiteśvara and Mañjuśrī.

61 The hill of Bong ba ri is also known as Bar ma ri; the *Tshig mdzod chen mo* only has an entry for Bar ma ri, mentioning that the Gesar temple is on its top, while Dungkar's *Dictionary* says the same thing of Bong ba ri. There is no mention in either of these dictionaries of the alternative name. I am indebted to Alice Travers (CRCAO, Paris) for pointing this out.

In second instance, this geographical description of Tibet also brings, by progressively decreasing concentric circles, the discourse back to the Potala and its armoury, in order to summarise again its main contents and conclude the preamble with a colophon. It is in fact in the Potala, the beautiful palace appointed by heaven on top of Marpori, that are kept the garments of lay government officials, the body and horse armour, both decorated with the symbols of the four great units of Ü; light armour fit for travelling; armours of the nomads of Hor, Sog and Kham who protect the government; swords, arrows and spears, guns (styled as *me mda'*; but notice that above the text earlier referred to *gyogs 'phrul skor*); large tents for the main camp, as well as canopies, large copper cauldrons, and a variety of necessary provisions (*tsho chas*). All, the colophon concludes, are stored here to be protected from the rain so that they would not get ruined and their arrangement would not be disturbed.

4 Conclusions

Several conclusions, then, can be drawn from this brief analysis of the preamble to the catalogue of military supplies in the Dorjéling armoury. While the Fifth Dalai Lama, unlike Pope Pius II, did not go as far as to name weapons after himself or his mother, the text gives us an idea of his understanding of and approach to the question of warfare and provides some answers to the three questions posed earlier. First, concerning his level of involvement with military affairs, the text does not reveal much about it; it remains unclear whether he actually participated in the decision to found the armoury or just endorsed it by writing the preamble. However, he was cognisant of what was happening and had formed a rationale in his mind on how to justify this action, a rationale that he expounded in this text. This was based on the importance of preserving Tibet as a bastion of genuine, unsullied Buddhist teachings. Neighbouring countries, either where Buddhism had existed but was in decline at the moment, or where Buddhism was unknown, could all profit from their geographical closeness to Tibet and from the possibility of tapping from its inexhaustible source of salvific knowledge. Thus, it was imperative to protect, militarily if needed, the integrity of all the regions of Tibet under the control of the Ganden Phodrang, the most apt government for the preservation and dissemination of Buddhist teachings. If military intervention should prove necessary, then it made perfect sense to store and maintain in good working order all the necessary supplies for fighting.

A second important consideration in regards to the Fifth Dalai Lama's knowledge of and involvement with military affairs, concerns his knowledge of weaponry in general. Unsurprisingly, this seems to

have been very superficial; the first weapons he mentions in the list of the contents of the armoury are knives and *phur pa*, which typically are everyday tools (the former) and ritual weapons (the latter) and not arms intended for warfare. However, he seems to have been at least somewhat familiar with the above-mentioned *Treatise on Worldly Traditions*⁶² or with similar texts that discussed the various classifications of arms and armour, since he lists several specific names of body-armour and helmets.

As for his awareness of the importance of weapons in the wider political context of which he was part, the text illustrates that he understood it very well. In fact, the section on the justification of the preeminence of Tibet is the longest and best developed one in the whole text, and is intended to validate the Ganden Phodrang's right to sustain an army with enterprises such as a well-organised armoury. Last, it should be added that this preamble was taken as a model by the Thirteenth Dalai Lama in 1916, when he also composed four preambles to catalogues of weapons in possession of the Ganden Phodrang. These were analysed a few years ago without realising that they were modelled on this text by the Fifth Dalai Lama.⁶³ However, although the two incarnations of Avalokiteśvara had different knowledge of military matters and different levels of awareness of Tibet vis-à-vis the surrounding countries, both could and did share together the narrative of Tibet as the country destined to guide spiritually its neighbours, and consequently of the existence of an army as a safeguard, either to impose Gélukpa predominance, or to prevent foreign interference.

62 See introduction to this volume.

63 See Venturi, "The Thirteenth Dalai Lama".

5 The Text and Its Translation

(p. 275) *Pho brang chen po po ta la'i go mdzod rdo rje gling gi g.yul chas rnam kyis deb ther le tshan gyi 'go brjod sdeb sbyor rgyun chags dang po gtum po'i char 'bebs sogs*⁶⁴

Binayamaraṇatoshirāṇāṃmalāntrodzanabaukritaṃtsāpinotriṅptara ktārbhakashra

Bika hitsa sutsa rma ba i bhūṣa ṇeṣu bya ra ut wa nytsa mā dzībapanggābatakrāntata

log 'dren bsad pa'i mgo 'phreng rgyu ma ga shar byas kyang ma tshim par / khrag 'dzag pags rlon lding stabs gyon nas bam ro 'dam star brdzi ba yi //⁶⁵

Atirabaṇasharīrakālasayashatraubilāityamanydzoshtsabadzrendraga krotashastika

Hiharitanaṃdzwalaiṣṣhatrubhinytsakraṣhirṣeṃr. yugāsatyabhūmaupatityaṃkuru /

srin po'i gzugs kyis dus dgrar rnam rol 'jam dpal rdo rje khro bo'i dbang // mtshon rnon 'bar bas dgra dpung mgo bo cig car sa la lung bar mdzod / (234ba) bsams pa tsam gyis 'dod pa'i dngos grub kun // 'bad med rtsol la yongs 'du'i mched gyur kyang // yid srubs gshed du gnam lcags rdo rje thog // dmag zor lhag pa'i lha des rtag tu skyongs // gya gyu'i sems ldan rgol ngan glang po'i mgor // gsod rtags ka ra wa ra'i me tog 'phreng // rab 'god 'jigs med rgyud kyis nga ro can // beg tse lcam dral bla tshe srog gi bdag // zhe sdang nyi ma 'char ka ltar dmar mig // zlum por blta ba'i zol gyis dgra bo'i bla / 'gugs mdzad sprul pa'i chos rgyal sde lnga [p. 276] po // gsang yum sprul blon tshogs kyis mthu dpung skyed // gang gi bka' gnyan btsan rgod gnod sbyin che / dkar nag las rnam 'byed pa'i mel tshe mkhan / gangs can chos srid bstan 'dzin phas rgol gyi / srog snying khrag dron ro bda'i skyems su gsol / dkar nag rtsis kyis lo zla zhag gi lha / gza' skar spar sme sa bdag rgyal blon 'bangs / thugs kar sum brgya drug cu la sogs pa / stobs ldan dgra lha'i tshogs kyis rtag tu srungs / yid can yongs kyis phan dang bde ba'i gzhi / don kun grub pa'i ring lugs bla na med / yun du gnas 'phel rtsa lag gnam bskos lha'i / khriṃs gnyis zung

70 The text is in volume nineteen (*ma*) of the collected works of the Fifth Dalai Lama; here I follow the page numbering of the online version retrievable on the Buddhist Digital Resource Centre website, catalogued as W1PD107937 (<https://www.tbrc.org>).

65 Cf. these lines with those in a *sādhana* dedicated to Hayagrīva and composed by the young Sixth Dalai Lama:

ri-nga mgo-bo rgyu-mar brgyus-pa'i 'phreng /

'phral bsad lpags rlon lding stabs gos-kyis kyang /

These were translated by Dan Martin as “your necklace is made of putrid heads threaded on intestines; even as your clothing, forming a loose canopy around you, is a fresh skin of one suddenly slain”. See Martin, “Secularity Divinized”, 99 fn. 12.

du 'jug pa'i srid kho na / skye rgu'i bde skyid 'phrog pa'i chom rkun
mun / mthar byed 'jig rten gsum gyi sgron me che / rgyal thabs yan
lag rnam bzhi'i dpung tshogs nyis / rdzogs ldan gsar pa'i snang ba
ches cher sbar / gsar 'gros gom gsum 'dzoms pa rta rmig gis / bsnun
pa'i sa chen 'dar ba rdul gyi 'tshub / bskal ba'i 'thor rlung rjes 'gro'i
shugs drag (235na) dpung / lha dmag rtsub 'gyur tshal du bsgrigs
pa bzhin / pha rol dgra de srog phral grangs de snyed / khro gnyer
smin mtshams bsdus pa'i ri mo ru / 'dri ba'i dpa' gtum rtsal ldan tsho
chen zhes / rgyal po'i zho shas 'tsho ba'i stag shar tshogs / glog ltar
'khyug pa'i dpa' bo tu ruška / hor dang mdo khams stod smad byang
'brog sogs / skad dang lugs srol mtha' klas rnam thos bus / g.yar mo'i
thang du mngon sum bkug pa bzhin / mi bsrn sbyor ngan rtsom la
zhe sdang me / gser srang stong gis brngan yang zhi min pa / rab
khros blo de yid srubs lus phra ma'i // mngon 'dod rtse dga'i 'phrul
gyis 'drid nus min / rgya byi dmar bal g.ya' ma skya chen dang / li
ting me rur grags pa gsar rnying bar / legs byung sgrog phyis kha
thi sha dom gsham / bkod mdzes srog skyob ches btsan rdo rje'i go /
li gzha' la sogs rigs bcu sra mkhregs rmog / rgyal mtshan rgod phur
dom ru ang seng dang / gzha' ris rnga bcus la sogs brjid ldan pa / 'jigs
med dpa' bo'i ring rtags mtshar du dngar / cang shes srog gi bsrung
ba lcags gzhibs go / che chung phub dang lcags zhol rnga chas sogs /
dbang gzhu ltar bkra 'chi med dpung tshogs [p. 277] rnam / lha min
'dul phyr g.yul du zhugs pa bzhin / ru mtshon ba dan phyar ba srid
rtser snyeg / dpag chen mda' dang 'phrul sgyogs me yi mtshon / ral
gri'i 'od sngon 'phro la dpung rgyan du / spud pas dgra snying shubs
nas lkog mar thon/⁶⁶ phru ma'i dbus na gur dkar lhun po ltar / mtho
brjid yol ba'i (235 ba) lcags ri khor yug can / lding gur bza' btung
spyod pa'i yol go sogs / mkho dgu'i 'byor ba gnod sbyin mdzod bzhin
gtams / log 'dren srog bral mgo bo med pa'i ro // 'dab chags sha za'i
gsos su bkram pa'i gtam / thos pa'i mod la gya gyu'i sems ldan gyi /
yid la gnag pa'i dam bca' ring du dor / chen po rtul phod sgyu rtsal
'phong skyen po / stobs ldan rā ma ṅa yi rjes 'gro bas / rgyal rnga lan
brgyar brdung dang lhan cig par / bstan byus yid bzhin tog mdzes
rgyal mtshan 'phyar / rang srid bstan dang de rjes 'brang kun gyi /
byus legs rdo rje'i srog shing rab tshugs par / dkar phyogs dga' ba'i
lha rgyal 'then pa dang / skyid pa'i dbyangs snyan sgrog la gcig tu
brel / gangs can mang bkur rgyal khab chen po yi / go mdzod rdo
rje lta bur sra brtan gling / grags pa don ldan dpya yis rab gtams
pa'i // brjed byang deb ther yi ge'i 'phreng mdzes spel / zhes shis pa
brjod pa'i tshig gis sngun bsus te / 'jigs rten khams ler / gling ni zla
ba 'od dkar can dang rab mchog ku sha dag ni mi'am ci dang khrung
khrung dang / drag po yang ni longs spyod pa ste bdun par dzambu'i

66 This quatrain was quoted in the Thirteenth Dalai Lama's preamble to the book of Tibetan-made guns. See Venturi, "The Thirteenth Dalai Lama", 487 and 496.

mi rnams gnas pa dag ni las kyis / zhes spyir gling bcu gnyis po thams
 cad 'dzam gling chen por bshad cing / de'i nang nas dzambu'i ljon pas
 nye bar mtshan pa'i lho gling 'di la 'dzam gling chung ngur grags pa
 ni / gdan bzhi las / dzambu gling du legs skyes pa / dngos grub sa
 par shes par bya / gling gsum por ni skyes pa ni // 'bras bu 'byung
 ba'i bsod nams gnas / zhes dang/ bde (236na) mchog mkha' 'gro rgya
 mtsho'i rgyud las / 'dzam bu gling ni chen po yi / dum bu bcu gnyis
 kyi ni dbus / 'dzam bu gling ni chung ngu 'dir / bdag gi shākya'i rigs
 rjes 'gro / zhes lho 'dzam bu gling 'dir bskal bzang gi sangs rgyas
 stong rnams byon cing 'byon par 'gyur pa'i gnas // [p. 278] mi rnams
 kyang dbang po rno zhing grims pa / dam pa'i chos sgrub pa'i rten
 khyad par can du gyur pa dang/ rdzogs ldan gyi dus su 'khor los sgyur
 ba'i rgyal po byung ba'i tshe / gling 'di nyid nas 'go brtsams te gling
 gzhan rnams la dbang sgyur bar bshad cing / gling 'di'i lte ba rgya
 gar 'phags pa'i yul gyi ma ga dha rdo rje gdan yin na'ang / khro phu
 lo tsā bas kha che pañ chen la phul ba'i zhu yig tu / ma ga dha sogs
 rig 'byung gnas na sdig to yis / dmag tshogs kyi⁶⁷ bcom skyon kha che
 bal yul yang / log spyod kyis khengs deng sang bstan srol legs gnas
 ni / bod yul 'dir zad skyes chen byang phyogs zhabs bskyod zhu / zhes
 dus kyi dbang las phan pa dang bde ba ma lus pa 'byung ba'i gnas /
 rgyal ba'i bstan pa'ang bod yul kho nar dar bar gsungs shing / yul de
 ni 'jam dpal rtsa rgyud du / nga yi dus nas lo brgya na / kha ba can du
 mtsho bri nas / sã la'i nags ni 'byung bar 'gyur / zhes gangs kyi rwa
 bas yongs su bskor ba'i sã la'i ljons chen po ru bzahir grags pa ste / de
 yang pu rangs / mang⁶⁸ yul zangs dkar gsum skor gcig / li / gru⁶⁹ sha /
 sbal sde⁷⁰ gsum skor gcig / zhang zhung / khri sde / stod smad gsum
 skor gcig ste stod mnga' ris skor gsum / mdo khams la smad khams
 btags pa (236ba) khams gcig / mdo smad la g.yar mo thang btags pa
 khams gcig / btsong kha la gyi thang btags pa khams gcig ste smad
 mdo khams sgang gsum / dbus na dbu ru dang g.yo ru / gtsang na
 g.yas ru dang ru lag gis dbus gtsang ru bzahir grags pa'i nang nas /
 'jam dpal rtsa rgyud las / lha ldan yul zhes bya ba 'dir / rgyal po mi
 yi lha zhes pa / li tsa bi rnams rigs su 'byung / zhes lung bstan pa'i
 lha ldan ni / ra sa 'phrul snang gi gtsug lag khang ngam / yongs su
 grags pa chos 'khor dpal gyi lha sa 'di yin la / yul 'di ni gnam 'khor lo
 rtsibs brgyad / sa padma 'dab brgyad / logs bkra shis rtags brgyad de
 dge mtshan phun sum tshogs pa'i dbus na / rigs gsum mgon po'i bla
 ri gsum yod pa'i nang tshan / spyen ras gzigs kyi bla ri glang po che
 dres⁷¹ la btags pa lta bu dmar po ri'i rtser gnam bskos rgyal po'i pho

67 Read: kyis.

68 Read: mar.

69 Read: bru.

70 Read: sti.

71 Read: bres.

brang mdzes sdug rnam par rgyal ba'i khang bzang la rngam brjid langka mgrin [p. 279] bcu'i grong khyer lta bu'i rgyal khab chen po'i go mdzod rdo rje'i gling du gsol go'i⁷² rim pa / drung 'khor gyi gyon khrab ta⁷³ go dang bcas pa / dbus tsho chen bzhi'i gzabs mchor dang / thang ring du bgrod pa'i yang chas gyi go cha dang / gzhung skyong gi hor sogs⁷⁴ khams 'brog gi go cha / mdor na ral gri / mda' mdung / me mda' sogs mtshon cha / dkyil sgar gyi gur chen / yol skor / lding gur / lding zangs sogs char skyob 'tsho chas kyi nyer mkho ji snyed pa rnams yod pa chud mi 'dza'⁷⁵ zhing / go rim mi 'khrugs par byed pa'i ched du 'phags yul ba pra wanggar 'bod cing / rgya nag gi yul du ting wal zhes pa 'byung ba sum (237na) ldan me lug⁷⁶ hor zla bdun pa'i tshes bcu dgu dmag dpon tha skar gyi 'grub sbyor thog gsar du bsgrigs pa'i deb ther g.yul las rnams par rgyal ba 'dzad pa med pa'i gter gyi sgo 'phar phye ba la /

72 *Gsol go* is an honorific form of *go*, 'armour'. See also Venturi, "To Protect and to Serve", 39 fn. 78.

73 Read: rta.

74 Read: sog.

75 Read: za.

76 It corresponds to the year 1667.

A Fierce Rain Shower. The First Uninterrupted Poetic Preamble⁷⁷
to the Book Chapter on Military Supplies (*g.yul chas*) of the Dorjéling
Armoury of the Great Potala Palace

[Sanskrit text transliterated in Tibetan]

Not being satisfied by just making necklaces with the heads and garlands with the entrails of the killed enemy; [you] wear [their] skins drenched in dripping blood in the guise of a canopy (*lding*),⁷⁸ and trample on the crushed mud of their corpses.⁷⁹

[Sanskrit text transliterated in Tibetan]

Power of the wrathful Vajra Mañjuśrī ('Jam dpal rdo rje), manifested as Vajrabhairava with the body of a *rākṣasa*; Make immediately fall to the ground the heads of the enemy troops with shining sharp swords! Even though you became [like] a sibling that gathers effortlessly⁸⁰

All the accomplishments that one desires just by the mere thought [of you], With a *vajra* of meteoric iron [thrown] at the enemy devils | [You], supreme deity Dmag zor rgyal mo, protect [us] forever.⁸¹ [With] a garland of *ka ra wa ra*⁸² flower like a mark of slaughter on an elephant's head [For] the wicked and deceitful sentient beings | The lion of the fearless and fully installed (*rab 'god*) [= *rab tu 'god*] lineage, Beg tse brother and sister, ruler of the vital life-force,⁸³ | [His] eyes, red as a rising sun of hatred, Summon the *bla* of the enemy through a trick of circular vision [and] [p. 276] | Raise the magically

⁷⁷ The expression *sdeb sbyor rgyun chags* refers to the particular style of poetic composition and metric style used here. I am grateful to Gedun Rabsal for this explanation.

⁷⁸ I am interpreting this as a short form for *lding gur* or *lding khang*, employed in order to respect the requirements of the metric.

⁷⁹ The two initial poems, i.e. this and the one that follows the next mantra, follow a metric of fifteen syllables each.

⁸⁰ From this line the metric changes to a nine-syllable rhythm.

⁸¹ I am grateful to an anonymous reviewer for suggestions that helped improve the translation of this passage dedicated to extol Dmag zor rgyal mo, and the following one praising Beg tse lcam dral.

⁸² The closest word I have found is *ka ra bi ra*, which may mean either 'oleander flowers' or another synonym for 'garland' (it renders the Skt. *karavīra*; I am grateful to an anonymous reviewer for pointing this out). Beg tse's iconography traditionally depicts him with a necklace of severed heads, rather than flowers, and red-coloured oleander buds may be interpreted as a poetic license.

⁸³ The god of war, a later deity probably introduced in the sixteenth century after contact with the Mongols. On this deity, see the ample discussion in Heller, "Etude", as well as a chapter in de Nebesky-Wojkowitz, *Oracles and Demons*, 89-93.

powerful army of the five emanated Dharma Kings,⁸⁴ | Their secret consorts, and assembly of ministers.⁸⁵

I pray that whoever among the great fierce commanders, demons, or *yakṣa*, | The sentinels who differentiate between white and black actions, | Drink the delicious warm blood, the life essence of the enemies [of] | The doctrine holders of the religious government of the Land of Snow.

The deities of years, months and days⁸⁶ of astrology (*dkar/skar rtsis*) and Chinese divination (*nag rtsis*), | Planets and stars, *spar [kha]* and *sme [ba]* astrological diagrams,⁸⁷ | Always protect, through the host of powerful war deities (*dgra lha*), | The three-hundred and sixty,⁸⁸ etc. in [your] heart: | The lords of the soil, kings, ministers and commoners!⁸⁹

Only the government with the two indivisible [temporal and spiritual] laws | Of the god appointed by heaven, [with] branches and roots [that] extensively grow | The basis of happiness and benefit of all living beings, [and] | The supreme tradition of the Buddha [is] | The great lamp of the three worlds, destroyer of | The darkness of robbers who steal joy and happiness from the living beings.

The two armies of the four districts of the kingdom | Will ignite evermore the appearance of the new golden age (*rdzogs ldan*) [Skt. *krtayuga*]; | [Their] horses' hooves, combining the three gaits: fresh,⁹⁰ walk and trot, | Will rise dust (*rdul gyi tshub*) [= *rdul tshub*] by making shake the ground they hit. The mighty troops, like a hurricane of [this] era; | Like a formation of the army of the gods in a charnel ground, | Will release the life force of the enemy in such large numbers!

84 This refers to Pehar and his retinue, which includes Brgya byin, Mon bu putra, Shing bya can and Dgra lha skyes; see de Nebesky-Wojtkowitz, *Oracles and Demons*, 94-133, and especially 107-33.

85 I am grateful to an anonymous reviewer for suggesting this reading.

86 These are deities connected with the Kālacakra tantra.

87 *Spar kha* and *sme ba* are units of time used to finesse a divinatory calculation. On this see Maurer, "Landscaping Time", 109-10.

88 These are the three-hundred sixty zodiac days.

89 On the connection of the *sa bdag* to chronomancy, or time divination to determine the best moment for an enterprise, see Schuh, "Die *sa-bdag*". Here, on the basis of an examination of Sde srid Sangs rgyas rgya mtsho's chapter on *sa bdag* in the *Vaidurya dkar po*, Schuh established that these beings (whose name, he suggests, would be better translated as "lords of time and divinatory space") are especially important for religious practices aimed at pacifying, increasing and exercising power, as well as rituals to destroy the enemy. In general, *sa bdag* dwell in time, and depending on the category, their abode is fixed in time (i.e. does not change with the passing of time), or changes depending on the year (in the cycle of the twelve animals), month, day, or even hour.

90 This refers to the gait of a young horse that has just been saddled. See *Bod rgya tshig mdzod chen mo*, 1063, s.v. "rta gсар".

A large group of fierce and strong heroes, depicted (*'dri ba*) [= *'bri ba*] as an image composing a frown between the eyes, | A host of young men who live with a royal stipend, Heroes moving as swift as lightning: Central Asians (Tu ruška) Hor, [warriors from] upper and lower Amdo and Kham, northern nomads, etc., | With endless languages and customs; just as Vaishravana⁹¹ | Summoned [them] directly in the plain of G.yar mo⁹² | [Their] wrathful fire toward [people who] commence ruthless actions; | Could not be calmed even by paying thousands of gold pieces. [Their] extremely angry minds could not [even] be enticed by the pleasant diversions of desire of a lovely woman of Kamadeva.

As for the old and new [equipment]: | The famed *rgya byi, dmar (yu/g.yu), 'bal, g.ya' ma, skya chen, li ting, and me ru;*⁹³ | Well obtained cloth (*phyis*), straps (*sgrog*), gunpowder holders (*kha*),⁹⁴ match cords

91 Well known as a deity connected with wealth, Vaiśravaṇa also has a role as protective deity (*lokapāla*) inasmuch as he is the king of the north and of the northern continent of Uttarakuru, and in this position he is at the head of armies of *yakṣa*. His role as protector is especially emphasised in the common depictions of this deity at the gate of temples.

92 Spelled both G.yar mo and G.yer mo, this plain is in an area of Mdo smad which includes Tsong kha.

93 These are the seven major types of lamellar armour. They are listed in La Rocca, *Warriors*, 265.

94 I am interpreting *kha* to be a shortened form of a term connected to arms and armour. The possibilities are several: 1) it may be an abbreviation of *sha kha*, a word used to denote a gunpowder holder made of horn; 2) *gri kha*, the edge of a knife or sword; 3) *me mda'i kha*, the muzzle of a gun; 4) *me mda'i tsha kha* or *so kha* the gunsight, a 'bead' or 'leaf'-shaped sight "found on the top of the muzzle of a gun barrel" (La Rocca, *Warriors*, 282). Given that items 2) and 3) and 4) identify specific parts of a larger item, parts that cannot be stored separately from the item to which they belong, I propose that the full word abbreviated here is *sha kha*.

(*thi*);⁹⁵ | Saddle ropes (*sha*),⁹⁶ horse tassels (*dom*),⁹⁷ [and] tassels (*gsham*);⁹⁸ | Handsomely arranged, greatly life-protecting, strong, indestructible armour; | Ten kinds of rigid (*sra mkhregs*)⁹⁹ helmets, such as *li gzha'*;¹⁰⁰ | Victory banners, knives (*rgod*),¹⁰¹ daggers (*phur*),¹⁰² tassels (*dom*),¹⁰³ *ru ang seng* [?]¹⁰⁴ and | Magnificent [objects] such

95 I am interpreting *thi* to be a short for *sbi thi* (also spelled *sbi sdi* and *sbi ti*), a “slow burning match cord that is used to ignite a matchlock gun” (La Rocca, *Warriors*, 281). This meaning also would agree with the interpretation of *kha* as *sha kha*, identifying an equipment necessary to shoot muskets. An alternative possibility to the interpretations offered in this and the preceding footnote has been offered by an anonymous reviewer, who suggests that *kha thi* could be taken all together as a term that indicates a type of luxury fabric silk known as *lampas*. Although I concur with the reviewer’s observation that the abbreviation *kha* and *thi* for *sha kha* and *sbi thi* may simply have been too cryptic for most readers, making their identification nearly impossible, I also wonder what was the purpose of a luxury material such as *kha thi* in a military context. The question, then, should remain open for the moment. A description of the *kha thi* fabric may be found in Karsten, “When Silk was Gold”, 6-7. I am grateful to an anonymous reviewer for this suggestion and its related reference.

96 Likely this is another abbreviation of a longer term. It could be a short form of *sha thag/rtag*, “the front and back rope that keeps a saddle in place on the horse” (Goldstein, *Dictionary*, 1090, and also *Bod rgya tshig mdzod*, 2823; but it is spelled *sha stag* in Das, *Dictionary*, 320). Alternatively, it could be the short form of *sha rkang* / *sha rkang mchog*, a sub-type of the *dmay yu* type of armour; it might also be a short form for *snga sha*, a word that denotes the front part, or pommel, of a saddle (on this word see the discussion in La Rocca, *Warriors*, 284), or even for *phyi sha*, the back (or curving part) of a saddle; however, the armour is a sub-type of a kind that has already been mentioned, and the front and back of a saddle cannot be stored as separate items from the saddle itself, so I have chosen to interpret *sha* as ‘saddle rope’.

97 This seems to be the short form for *dom dom*, “red tassel put on the neck of horses of high-ranking officials” (Goldstein, *Dictionary*, 547, and also La Rocca, *Warriors*, 285-7).

98 This may be short for *gsham 'dzar*, a type of tassel.

99 The term *sra* is also used within the phrase “*mtshon khar sra*”, literally meaning ‘hard upon a weapon’ and translated by La Rocca, *Warriors*, 275 as “proof against cut and thrust”.

100 A type of helmet made of “bell metal”, see La Rocca *Warriors*, under *gzha'i li*.

101 This may be a short form of *rtse rgod*; see La Rocca, *Warriors*, 274 after Das, *Dictionary*, 1012. Notice also that the least common meaning for the word *rgod* in Goldstein, *Dictionary*, 251, is “military” (this meaning does not appear in *Bod rgya tshig mdzod*).

102 Alternatively, *phur* of the text may be a mistake for *phub*, ‘shield’.

103 It seems strange that the same item would be repeated twice in the space of a few lines, however, La Rocca, *Warriors*, 285-7 shows that several cognate terms, all including the word *dom*, were used to identify tassels hung from the harness on horses’ neck and chest (*snying dom*, *dom dom*, *dom dom nyis brtsegs* and *og dom*).

104 These are possibly abbreviations of longer military terms, though it is hard to determine with certainty what their full form would be. *Ru*, ‘horn’, may be for *me ru*, a type of armour (already mentioned above, thus less likely as an option here); for *rdzas ru*, a horn to hold gunpowder; or for *ru kha*, the horn brace of a Tibetan gun; or finally for *me mda'i ru*, “a gun rest made of two prongs attached to the gun stock near the muzzle” (La Rocca, *Warriors*, 282). I cannot determine the meaning of *ang* in this context; *seng*, normally ‘lion’, may refer here to *seng mgo*, a sub-type of the ‘*bal*’ armour (see La Rocca, *Warriors*, 265).

as rounded drums [with] rainbow designs; | Properly arranged as marvellous symbols during the time (*ring* [?]) of the fearless heroes; | Horse¹⁰⁵ armour, iron protection of the life of thoroughbred (*cang shes*) horses; | Large and small shields (*phub*), and *lcags zhol* weapons,¹⁰⁶ drums, equipment, etc. The immortal troops, as splendid as a rainbow, [p. 277] | As [they] go to battle (*gyul du zhugs*) to subdue the *asura* | Pursue the pinnacle of cyclic existence¹⁰⁷ by hoisting¹⁰⁸ banners (*ru mtshon*) and standards (*ba dan*). They are adorned with [these] war ornaments: arrows [that reach] a mile¹⁰⁹ and weapons (*mtshon*) with | Mechanic¹¹⁰ (*'phrul*) artillery fire [*sgyogs me*]; swords glowing with blue light; | So the heart of the enemy is torn out from its casing to the throat.¹¹¹

In the middle of the military encampment (*phru ma*), like a white tent Mount Meru (*lhun po*), | Surrounded (*khor yug can*) by a screen of high, resplendent curtains | The large canopy is filled with necessities [and] wealth | Like a *yakṣa*'s treasure: bowls, etc., for eating and drinking. [With] reports of scattering, as nourishment for flesh eating birds, | The headless corpses [of] the dying wicked ones | The dishonest living beings, immediately [upon] hearing [this], | [Will] give up the black intentions in [their] mind.

105 I am reading the text's *gzhibs* as *chibs*, an honorific term for 'horse'.

106 Das, *Dictionary*, 398, simply identifies this term as "name of a weapon". La Rocca, *Warriors*, 273, defines it as the name for a non-projectile, hand held weapon.

107 Skt. *bhavāgra*, the highest level of the three realms.

108 Note that this sentence was later transposed by the Thirteenth Dalai Lama in his preamble to the catalogue of weapons produced in Tibet; see Venturi, "The Thirteenth Dalai Lama", 487, 496-7.

109 The word *dpag chen* is said to mean 'great skill' or 'force (in archery)', thus can also be found translated as 'skilled archer'. Note, however, that Jäschke, *Dictionary*, 326 gives *dpag chen* as a synonym of *dpag tshad*, a geographical mile. An alternative translation could be 'powerful arrows'.

110 Cf. this translation with the one of the same passage transposed by the Thirteenth Dalai Lama. There, '*phrul*' is translated separately as 'machinery', while another possibility offered here is that '*phrul sgyogs me*' is to be taken as an entire word, indicating 'mechanic' or 'magic' artillery fire, possibly cannons or matchlocks wall guns, similar to the so-called *jingals* or *gingals* described by English soldiers that participated in the Younghusband expedition.

111 Also this section was transposed in the preamble composed by the Thirteenth Dalai Lama; see Venturi, "The Thirteenth Dalai Lama", 496-7.

[Our] great champions, capable (*sgyu rtsal*),¹¹² skilled archers¹¹³ | Emulate the powerful Rāmaṇa,¹¹⁴ therefore, | Together with beating the drum of victory a hundred times, | [They] hoist a beautiful victory banner [as a] wish-fulfilling teaching strategy. Having established the excellent, fortunate vajra-tree-of-life | Of our own government, teachings and all that follows after that, | [They] Celebrate the victorious gods (*lha rgyal 'then*) [and] rejoice in virtuous activities | While (*gcig tu brel*) [= *gcig tu sbrel*] proclaiming happiness with melodious voice.

I promulgate this beautiful string of words, the book to aid the memory | Of the well-filled by purposeful taxes (*dpya*), the famous | Island that is solid like a vajra, the armoury | Of the universally respected (*mang bkur*)¹¹⁵ great government of the Land of Snow.

Thus, with an introduction of auspicious words,¹¹⁶ in the section on the physical world:

“As for [this] continent, white-lit moon and excellent *kusha* grass; as for purity, *kiṃnara*¹¹⁷ and cranes; and even [its] strength is beneficial; as for [its] inhabitants, the people of Jambudvīpa in the seventh¹¹⁸ [continent], through *karma* [their fate is determined]”, thus in general are explained all the twelve continents of the great Jambudvīpa. Among these, concerning what is known as the lesser Jambudvīpa on this southern continent well-adorned [with] Jambu (rose apple) trees, from the *Catuḥpīṭha*: “Those well-born in Jambudvīpa are known as the dwellers (*sa pa*) of accomplishment; as for those born in the three continents,¹¹⁹ [they] establish the merit of generating results”, thus [it

112 *Sgyu rtsal* is a name for ‘art’ in the sense of ‘skill’ or ‘technique’. There is a list of the sixty-four arts, which comprises thirty arts spread in early India, eighteen musical arts, seven arts of song, and the nine arts of dance. Fencing, *ral gri'i thabs*, is mentioned in La Rocca, *Warriors*, 276 as one of the sixty-four arts.

113 Das, *Dictionary*, 851, defines ‘*phong rkyen*’ as a term encompassing the five distinguishing features in archery, i.e. to hit an object 1) from a great distance; 2) without perceiving it; 3) with great force; 4) at the main point, or target; 5) with a sound. The spelling *skyen* here may represent a variant; the expression ‘*phong skyen pa*’ is used to describe a skilled archer (Goldstein, *Dictionary*, 705).

114 King Rama is known for his abilities as an extraordinarily competent archer, and one of his epithets is ‘*phong skyen*’.

115 This is derived from the entry *mang bkur rgyal po* “king of universal respect”, a term of praise; see Goldstein, *Dictionary*, 789.

116 The nine-syllable stanzas conclude here; the rest of the text does not seem to follow a strict metric.

117 These mythical beings are celestial musicians represented as partly human (human body and horse head, or also human head on a bird's body) and regarded as a class that protects the Dharma.

118 Jambudvīpa “is said to be the central of seven continents that surround Mount Sumeru”; see Buswell, Lopez, *Dictionary of Buddhism*, 377.

119 The *ni* after *gsum por* is not rendered here; it may be placed there just for metrical reasons.

says]; and from Cakrasamvara's *Ocean of Ḍaka Tantra*: "In the lesser Jambudvīpa, at the centre of the twelve parts of greater Jambudvīpa, I shall follow the lineage of the Shākya", thus, here in this Jambudvīpa of the south have appeared and will appear (*'byon par 'gyur pa'i gnas*) thousands of Buddhas of the good *kalpa*. [p. 278] Also the men, being clever and sharp, became excellent support for the practice of the true doctrine; and it is explained that when a *cakravartin* arose in the golden age [Skt. *satya-yuga*], he began from this very continent, and [then] ruled on other continents. The navel of this continent is the Vajrāsana in the Magadha [region] of the holy country of India, but, in a letter given to Kha che paṅ chen¹²⁰ [1127-1225] by Khro phu lotsāwa¹²¹ [1172?-1236?], [it is said that] "In the birthplaces [of] knowledge such as Magadha, armies [caused] destruction and damage with sinful deeds; even Kashmir [and] Nepal are filled with wrong views. Presently, as for places with a good system of the doctrine, they are reduced to here in Tibet; I humbly ask [you], great saint (*skyes chen*), to travel north", thus because of the changing times,¹²² it is said that the place from which arise benefits and happiness without exception (*ma lus pa*), and the doctrine of the Jina spreads is only in Tibet. As for this place, in the root tantra of Mañjuśrī, "One hundred years from my time, after the lakes in the Land of Snow will diminish, a forest of Sāla trees will appear", thus it became known as the four horns, the great country of Sāla trees completely surrounded by a fence of snow. In this regard, the three areas of Pu rangs, Mar yul, Zangs dkar [form] one; the three areas of Li, Bru sha [Gilgit], and Sbal ti, one; the three areas of Zhang zhung, Khri sde,¹²³ Stod smad,¹²⁴ one; i.e. Stod Mnga' ris skor gsum,¹²⁵ in Mdo khams, one region desig-

120 A common epithet for Śākyaśrībhadrā, the last abbot of the monastery of Nalanda. He was originally from Kashmir and was invited to teach in Tibet by Khro pu lotsāwa.

121 A twelfth-thirteenth century saint celebrated for having invited Tibet and translated for several influential Indian sages, such as Mitrāyogin and Śākyaśrībhadrā. For his biography see <https://treasuryoflives.org/biographies/view/Tropu-Lotsawa-Jampa-PeL/6405>.

122 *Dus kyi dbang las = dus dbang*, see Goldstein, *Dictionary*, 536.

123 Khri sde is said to be the cradle or heart of the region of Zhang zhung. See Vitale, *Gu.ge Pu.hrangs*, 158.

124 Zhang zhung stod and smad are already indicated as two areas of Zhang zhung in Dpa' bo gtsung lag 'phreng ba, *Mkhas pa'i dga' ston*, 188.

125 The Fifth Dalai Lama utilised this particular division of Stod Mnga' ris in these three specific areas in several of his writings, see Tucci, *Tibetan Painted Scrolls*, 252 fn. 36 and *Preliminary Report*, 71-5. Tucci thought that this classification retained a tradition going back to the period of the Tibetan empire during the period of its largest expansion, and it is certain that here the Fifth Dalai Lama is listing territories that he evidently saw as being in the legitimate purview of the Dga' ldan pho brang. The geographical view of Tibet illustrated here was later reprised in the *A mdo chos 'byung* (see Shabkar, *The Life of Shabkar*, 459 fn. 22; Tuttle, "The Oceanic Book", 139 ff.).

nated (*btags pa*) Smad Khams; in Mdo smad one region labelled Gyar mo thang [and] one region labelled the plain of Tsong kha, i.e. the three ranges of Smad Mdo Khams; in Dbus, Dbu ru and G.yo ru; in Gtsang, G.yas ru and Ru lag, [i.e.] what is known as the four horns of Dbus and Gtsang. Among these, from the root tantra of Mañjuśrī: “In this place known as Lha ldan [Lhasa], the king, known as god of men, arose in the lineage of the Licchavi”.¹²⁶ Thus Lha ldan was prophesied, [and that is] the Ra sa ‘phrul snang gtsug lag khang [self-manifested temple of Ra sa], or else the universally known Lhasa (*chos 'khor dpal gyi lha sa*); as for this place, in the sky there is an eight-spoked wheel, on the ground an eight-petalled lotus, on the sides eight auspicious symbols.¹²⁷ In the midst of [these] wondrous signs, are the three ‘soul-mountains’ (*bla ri*) of the three protectors,¹²⁸ one of which is the soul-mountain of Avalokiteśvara, Dmar po ri, that resembles an elephant stretched out,¹²⁹ [and] on top of which is the beautiful palace of the heavenly appointed king. In [this] mansion of complete victory (*rnam pa rgyal ba'i khang bzang*) is [p. 279] the series of armour (*gsol go*) at the Rdo rje gling armoury of the great capital, which is like the city of the terrifying king of the Rakṣasa. [It holds]: lay government officials’ garments (*gyon*), together with body armour (*khraab*)¹³⁰ and horse armour (*ta go*) [= *rta go*] decorated (*gzabs mchor*) [= *gzab mchor*] with the four great units of Dbus,¹³¹ and light (*yang chas*) armour (*go cha*) to travel far; armours of the nomads¹³² of Hor, Sog and Khams who protect the government; in brief, weapons such as swords (*ral gri*), arrows (*mda'*), spears (*mdung*), and matchlocks (*me mda'*); large tents for the main camp; cloth curtains

126 Also spelled *Lī tsa bī*, it is the name of the Indian clan of the Licchavi, that was installed in the area of Vaiśālī; several of its members contributed with generous donations to the diffusion of the Dharma during the lifetime of Siddharta Gautama.

127 Compare with a similar passage from the *Bka' chems ka khol ma* translated in Sørensen, *The Mirror*, 557: “It was reckoned that the site [of lHa-sa] resembles the eight leaved-lotus, the sides [of the plain i.e. the surrounding mountains resemble] the eight [Buddhist] auspicious tokens, and in space the eight-spoked wheel [would be found]”. I am grateful to an anonymous reviewer for pointing out this reference to me.

128 Avalokiteśvara, Mañjuśrī and Vajrapani. On the idea of *bla ri*, see Maurer, “Sa dpyad”, 74-7.

129 On the idea that Dmar po ri looks like a sleeping, stretched-out elephant see Sørensen, *The Mirror*, 537.

130 See La Rocca, *Warriors*, 51-66; 267-8.

131 It is possible that armours were already marked with symbols that helped to distinguish which particular division of soldiers was allowed to use them. Markings that seem to identify division name and even the catalogue number of pieces of armour have been identified and discussed in La Rocca, *Warriors*, 64, 66; and by the same author in this issue.

132 Alternatively, ‘*brog* here stands for *byang' brog* as in a passage above (page 276 of the Tibetan text), and thus identifies the geographical area of the northern plains and its generally nomadic inhabitants.

(*yol skor*) [= *yol sgo*];¹³³ canopies (*lding gur*); large copper cauldrons (*lding zangs*),¹³⁴ etc. There are as many articles (*tsho chas*) as necessary to protect from the rain; so [the equipment] cannot get lost (*chud mi za*) and its arrangement cannot be disturbed. In order to do [so], on the nineteenth day of the seventh Hor month of the fire-sheep year [1667], that has three elements,¹³⁵ those from the holy land (*'phags yul ba*) [India] call [it] "*pra wanggar*";¹³⁶ and in China "*ting wal*";¹³⁷ this book, compiled at the highest new junction of Ashvini and Mars,¹³⁸ opens the doors of the treasury that will not squander complete victory in war.

133 Goldstein, *Dictionary*, 1009, defines *yol sgo* as "a cloth fence set up on all four sides (usually in the park for privacy by those picnicking)".

134 Alternatively, this may be yet another type of tent.

135 This might refer to the traditional denomination of Tibetan years, that is characterised by three components, an element, a gender and an animal, as opposed to the Indian and Chinese systems. I am very grateful to an anonymous reviewer for suggesting this hypothesis.

136 Unidentified.

137 For the correspondence of the Tibetan and Chinese years, see Korosi Csoma, *Grammar of the Tibetan Language*, 149 and von Staël Holstein, "On the Sexagenary Cycle", 299.

138 The terms *dmag dpon* is a synonym for *mig dmar*, Tuesday, and the astrological conjunction called *grub sbyor* is found in the correlation of the day of the week and the longitude of the moon (see Schuh, *Kleine Enzyklopädie*, 1326).

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From Matchlocks to Machine Guns. The Modernisation of the Tibetan Army's Firearms Between Local Production and Import (1895-1950)

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Abstract Between 1895 and 1950, the Tibetan government took several steps to improve the firearms and artillery of its troops, setting up local factories and negotiating with foreign powers to purchase arms manufactured abroad. These imports were directly related to the political relationship with these countries and required the introduction and diffusion of new knowledge and techniques among Tibetan troops. Based on Tibetan and English sources, this article discusses some of the challenges met by the Tibetan government in this process and gives an overview of the variety of modern firearms that the Tibetan army used in the early twentieth century.

Keywords Tibet. Tibetan history. Weapons. Firearms. Matchlocks. Small arms. Artillery. Arms imports. Arm production. Arsenal. British India. British Raj. Younghusband Expedition. Qing China.

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1 Introduction

The story of the transformation of the Tibetan army's weaponry during the first half of the twentieth century, of the Tibetan government's various attempts to keep pace with the contemporaneous rapid development of light firearms and artillery, and to keep its army's equipment as up to date as possible has partly fallen into oblivion for a number of reasons. First, it is certainly linked with a tendency to apply an *a posteriori* reading to history: the military history of Tibet in the early twentieth century is ultimately one of defeat, and any steps taken by the Tibetan government towards the modernisation of its weapons have been deemed not only as insufficient but as historically insignificant. Second, the eventual insufficiency of these efforts has often and too quickly been explained by the 'religious nature' of the Tibetan government – and thus by a supposedly inherent incapacity of a Buddhist government to deal with military matters.¹ Third, all the while the much more significant role played in this period by international politics in both the successes and failures of Tibet in the development of its firepower has partly been underestimated. Fourth and last, the 'backwardisation' trend that characterises Western and Chinese literature on early twentieth-century Tibetan society has not spared Tibetan weaponry. This tendency has led many observers of early twentieth-century Tibet to focus more on the 'medieval folklore' they witnessed in all fields, including weaponry, than on any signs of technical developments (except for those they had some responsibility in bringing about). There have even been well-known attempts to falsely present either antique weapons kept as *ex voto* in temple chapels or centuries-old ceremonial attire (armour, helmets, barding, etc.) that was donned to showcase the ancient Tibetan military heritage during annual State festivities as being the actual military equipment still in use by the Tibetan army at times of war in the early twentieth century.²

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1 For a thorough deconstruction of that idea in the Tibetan context, see Travers, Venturi, *Buddhism and the Military in Tibet*.

2 See for instance the photographs of such armour, shields and helmets and the related ambiguous descriptions published by L. Austine Waddell, the medical officer to the 1903-04 'Younghusband expedition', in his book *Lhasa and Its Mysteries*. As has been exposed by Michael Fredholm (Fredholm, "The Impact of Manchu Institutions") and by Clare Harris (Harris, *Photography and Tibet*, 9-10; *The Museum on the Roof of the World*,

However, considering that Tibetans started their transition from matchlock musket to modern firearms with a delay of approximately fifty years compared to their overlord at the time, Qing China - whose own shift to modern weapons was 'ignited' by the Opium Wars in the mid-nineteenth century³ - the speed of the Tibetan transition could justify calling it a 'firearms revolution'. Indeed, the reason behind the Tibetan military defeat when faced with the small corps of Anglo-Indian troops that formed the 'Tibet-Mission Force' under the orders of Colonel Younghusband in 1903-04 (which later became known as the 'Younghusband expedition') was primarily the result of the Tibetan army's lack of modern military equipment, and specifically firearms, in addition to other factors.⁴ As this paper will show, the best and smallest fraction of its firepower consisted of a few imported but mostly locally produced modern firearms of lower quality, while the rest of its firepower consisted of old Tibetan-made muzzle-loading guns, specifically matchlocks,⁵ not to mention the remaining pres-

130-5), these photos, presented by Waddell as a reflection of the military equipment then in use by Tibetan soldiers, were actually staged in Chumbi with porters wearing obsolete military equipment kept in the protectors' chapel (*mgon khang*) of a nearby temple. Michael Fredholm is of the opinion that the horse armour on the photographs had fallen out of use already in the mid-seventeenth century and, as for the accompanying descriptions of such weapons, argues 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" (Fredholm, "The Impact of Manchu Institutions", 4-5). As underlined by Clare Harris, Waddell's intention was mainly to convince the reader of the validity of Younghusband's actions in Tibet. All available testimonies by other members of the mission confirm that this particular part of Waddell's account was misleading (as will be seen later in the present paper, Waddell himself reports in his book on the modern rifles that were produced in Lhasa and used by the Tibetan army). In his detailed account of the 'Tibet mission' in which he took part as a correspondent for the *Times* magazine, Perceval Landon for instance reports "vague rumours [...] generally embroidered with accounts of mailed horsemen and other picturesque details, which unfortunately were never justified by the fact" (Landon, *Lhasa*, vol. 1, 156), and describes that the only firearms used among Tibetan soldiers comprised both matchlocks and rifles of inferior quality and less modern than their own, in addition to a number of wall guns known as *jinjal*. See the third part of this paper for more details on the variety of weapons used by Tibetans in 1903-04.

3 Andrade, *The Gunpowder Age*, 257-96.

4 The British forces comprised highly trained professional soldiers, both officers and enlisted men, well disciplined and with extensive battlefield experience, which was certainly not the case, at that time (i.e. before the military reforms started under the Thirteenth Dalai Lama), of the small body of Tibetan regular troops, that received only seasonal training and had little field experience; even less so in the case of the rest of the troops, which was composed of regional levies.

5 According to Donald La Rocca, "the matchlock [was] used in Europe from the fifteenth to the seventeenth century and in Tibet from at least the seventeenth century until well into the twentieth. The most obvious feature of the Tibetan matchlock is the pair of long thin prongs, used to prop up the weapon when shooting on foot as opposed to on horseback" (La Rocca, *Warriors of the Himalayas*, 5 and photos number 99 to 102 in the catalogue; see also in Donald La Rocca's contribution to the present volume). For a detailed discussion of the history of the Tibetan matchlock and descrip-

ence of even older traditional Tibetan weapons such as swords. Tibetan firearms in that battle were strikingly less numerous, slower in use, less accurate and of shorter range than those of their enemy, in possession of bolt-action rifles, cannon and Maxim guns.⁶ Only fifty years later, when defeated by the Chinese People's Liberation Army in 1950, did Tibetan troops possess a variety of imported, modern, small and light, automatic firearms and artillery. Though the People's Liberation Army was equipped with more modern arms, the gap in nature between the two armies' firearm equipment was not as significant as it had been against British India, and cannot be considered the main reason for the swift Tibetan defeat.⁷

tions of its various parts with their terminology, as well as sketches and photographs, see Tashi Tsering Josayma's contribution in this issue. Interestingly, the prongs were also a characteristic feature not only of the Chinese musket after its introduction in the mid-sixteenth century, but also of the Islamic Turkish, Persian and Indian world; Qing China also continued to produce matchlock muskets for local use after they began purchasing and producing modern western-style rifles in the early second half of the nineteenth century (Theobald, "European Weapons in China", 4 and 6).

Whether the flintlock technology reached Tibet seems doubtful. While flintlocks progressively replaced the matchlock in Europe from the seventeenth century on, flintlocks never made their way to Qing China (except as gifts to the emperor), where the use of matchlocks continued well into the nineteenth century (cf. Andrade, *The Gunpowder Age*, 242 ; Theobald, "European Weapons in China", 6). Tibet could well have imported them from other neighbouring countries, like India or Russia, however primary and secondary sources are ambiguous. Tibetan sources are of no help to decide the issue, as the term *me mda'* (lit. 'fire arrow'), became the generic term for any type of firearm. Most English language sources mention only matchlocks. A few mentions of the English term 'flintlock' can be found, however either made by authors with no expertise in the technical diversity of ancient muskets (in the case of Richardson, *Ceremonies of the Lhasa Year*, 34 and Tung, *A portrait of Lost Tibet*, pl. 98), or in sources translated into English from other languages, which raises the hypothesis that it results from an erroneous choice made by the translator, as it is the case for instance in a translated book by the Japanese monk Ekai Kawaguchi that will be discussed further below in this paper. In a personal communication, Donald La Rocca states that while exemplars of Tibetan matchlocks are numerous in various collections all over the world, he is not aware of any flintlock from Tibet being extant today in any private or Museum collection (the closest flintlock geographically, somewhat similar to Tibetan matchlocks, would be a flintlock musket from Siberia in the Met, accession number 36.25.2179).

6 Maxim guns, the first recoil-operated machine guns, were designed by the American-British inventor Hiram Stevens Maxim in 1884. They were usually operated by a team of four to six men. Maxim guns were used in British colonial warfare from 1886 onward and were replaced in the British army by the Vickers gun in 1912 (see [fig. 13]) - the Vickers gun being a Maxim-type machine gun, simplified and lightened, its original name was 'Vickers-Maxim' (I am indebted in Jonathan Ferguson for this information). After the arrival of the Lewis gun, Maxim guns were redefined as heavy machine guns, having a more strategic role. There are several models of Maxim gun (some looking like a cannon and some lighter versions mounted on tripods) and it seems that those used by the British in Tibet were of the first type (see a photograph of one specimen reproduced in Tashi Tsering Josayma's contribution to this volume). On the Maxim guns and the severe imbalance in firepower during the 1903-04 'Tibet mission', see Harris, *Photography and Tibet*, 58.

7 Besides, Alex Raymond's recent research has shown that the battle of Chamdo in October 1950 was won only in extremis by the Chinese troops, who faced a variety of food

Thus, one aim of this paper is to document the chronology of the modernisation of firearms in the Ganden Phodrang (Dga' ldan pho brang)'s army during the first half of the twentieth century by dating the progressive appearance of modern types of firearms and giving their Tibetan terminology (see Appendix 1). More importantly, the paper seeks to analyse the means at the disposal of the Tibetan government to enact this modernisation. Indeed, in the past as in the present, all governments are confronted with the same two options when it comes to obtaining new weapons – producing them locally and/or importing them. Most governments chose to rely on both means for obvious strategic reasons: self-production is the only way to avoid being entirely dependent on other countries, while, at the same time, imports are instrumental to take advantage of the latest innovations in weapons technology without the expense of research and development, which is borne by more advanced countries. Moreover, imports are also a way to modernise local production, with imported weapons serving as models that can be copied domestically. This pattern was widespread in most Asian countries from the seventeenth to the twentieth centuries, and is described by Peter Lorge in his book *The Asian Military Revolution*.⁸ This paper will therefore analyse how Tibet handled these two modes of modernising its firearms, local production and imports, in order to better understand during the period under scrutiny when each of these two strategies started, reached its peak, succeeded or failed and why. The paper argues that, contrary to earlier analysis, the Tibetan government not only tried, but also partly succeeded, in obtaining the best available weapons and training, but that it failed to modernise fully its army because Tibet had great difficulty producing its own modern weapons, being a technologically limited country and because its only ally, British India, carefully regulated the transfer of technology and supplies of weapons.

Thanks to the pioneering work of Melvyn Goldstein, a part of the story of firepower development in Tibet before 1950 is already quite well-known, namely the history of weapon imports to Tibet from British India during the period from 1913 to the fifties and their extreme dependency on domestic and foreign Tibetan politics – specifically, both the Tibetan government's fluctuating will to prioritise military

supply and logistical problems. Not in a capacity to continue their advance into Tibet, they pursued a policy of negotiation with the Tibetan government (Raymond, "The Origins of the 17-Point Agreement", 2; Raymond, "Mao, the Chinese Communist Party").

⁸ Peter Lorge has underlined this process during the first diffusion of firearms in the world: "European weapons were somewhat better when they reached Asia in large numbers in the sixteenth century. Asia then became part of the European arms trading system, incorporating new advances as they became available. As a result, Asia was never more than a decade or two behind Europe in its weaponry" (Lorge, *The Asian Military Revolution*, 17).

modernisation and the persistent reluctance of the British to export weapons in sufficient number to Tibet. Nevertheless, certain chronological and thematical gaps remain regarding our knowledge of the development of firepower in Tibet before 1950 which this paper aims to address, on the one hand by studying local production and imports before 1913 - the start date for Goldstein's study - based on hitherto unexploited documents from British archives (mostly those kept at the National Archives of India),⁹ and on the other hand by taking into account the testimonies of Tibetan soldiers, which is made possible thanks to former Tibetan soldiers' and officers' autobiographical accounts recently published both in the Tibet Autonomous Region and in exile. These Tibetan accounts have a triple advantage: they allow us not only to better understand Tibetan oral traditions regarding the history of weapons manufacture in its earliest stages and to have a direct understanding of the personal experiences of Tibetan soldiers in this 'firearms revolution', but also to document the Tibetan terminology of modern firearms.

Based mainly on the above-mentioned two types of sources (Tibetan autobiographies and Indian archives) as well as other British archives and accounts, a few Tibetan archive documents, and photographic sources, this paper will analyse how the Ganden Phodrang government endeavoured to negotiate through local production and importation the crucial modernisation of its army's firearms from 1895 to 1950, i.e. the period of the Thirteenth Dalai Lama (r. 1895-1933) and the regency (1933-50). After a few preliminary remarks on the history of firearms in Tibet before the late nineteenth century, this paper will first document the search for self-sufficiency through local production and then the subsequent prevailing importation strategy, along with the challenges it raised.

⁹ Abbreviated as NAI in the references. British Archives from the India Office Records (abbreviated IOR) at the British Library, London and from the Foreign Office (abbreviated FO) at the British National Archives (Kew Gardens) were also used for this paper.

2 Preliminary Remarks on the Import and Manufacture of Firearms in Tibet from the Seventeenth to the Nineteenth Century

The first known mention in a written source of firearms, to be precise, of matchlocks muskets (*me mda'* or *me'i mda'*),¹⁰ being used by Tibetans is found, according to Tashi Tsering Josayma, in the autobiography of the First Panchen Lama and dates to 1618-19.¹¹ The use of matchlocks in the seventeenth century is attested in several sources.¹² Yet neither their prevalence nor Tibet's relative level of advancement in comparison to its immediate neighbours during the seventeenth to nineteenth centuries has so far been fully assessed. If one reads Petech's descriptions of the major armed conflicts in Tibet in the eighteenth century,¹³ it is apparent that for this period the generalised use of firearms in battle is well documented. Matchlocks, wall guns or swivel guns (*me'i mda' chen*)¹⁴ and cannons (*me sgyogs*)

10 Also known as *bog* in Kham (Khams), see Tashi Tsering Josayma in this issue.

11 Tashi Tsering Josayma in this issue. Donald La Rocca writes about the progressive introduction of firearms in the sixteenth century "from several sources, including China, India, and West India, as part of the general spread of the use of firearms throughout Asia" (La Rocca, *Warriors of the Himalayas*, 198).

12 For a discussion of references to firearms in early historical sources, see Tashi Tsering Josayma in this issue. See also Venturi in this issue for a study of a text authored by the Fifth Dalai Lama on the Dorjéling (Rdo rje gling) armoury founded in 1667, in which '*phrul sgyogs me* and *me mda'* are mentioned.

13 See Petech's mentions of the firearms (guns and cannons) of Pho lha nas' troops based on the *Mi dbang rtogs brjod* at the time of the Dzungar invasion of Tibet in 1717-20 (Petech, *China and Tibet in the Early 18th Century*, 38), during the civil war in 1720-28 (Petech, *China and Tibet in the Early 18th Century*, 125, 126, 130, 132, 138), and in 1750 (Petech, *China and Tibet in the Early 18th Century*, 214).

14 Petech translates *me'i mda' chen* as "swivel guns" and records their use from the civil war in 1720-28 onward. He defines the long-lasting "swivel guns" in Tibet as follows: "They were long-barrelled small-bore weapons. In 1904 they were still in use and played a great part in the siege of the British mission at Gyantse [Rgyal rtse]. Waddell calls them by the Anglo-Indian name *jingal* (on which see Yule, Burnell, *Hobson-Jobson*, London 1886, 285, s.v. "gingall"). It was not cannon; that is called in the *MBTJ* [*Mi dbang rtogs brjod*] *me-skyogs* [sic]" (Petech, *China and Tibet in the Early 18th Century*, 125 fn. 3). However, the *jingals* of Waddell's (and Landon's) reports on the Younghusband expedition are defined as "small cannons" (Waddell, *Lhasa and Its Mysteries*, 249), which raises doubts on the fact that the *me'i mda'i chen* of the eighteenth century and the *jingal* used in 1903 against the British would be the exact same firearms. The link established by Petech between the *me'i mda'i chen* and the Anglo-Indian *jingal* does not clarify the matter, as a *jingal* could designate two different types of firearms, according to the Hobson-Jobson's definition, i.e. a "swivel or wall-piece" (emphasis added). The later *Encyclopaedia Britannica* dated 1911 defines also the *gingall* or *jingal* as possibly designating two different types of firearm: "a gun used by the natives throughout the East, usually a light piece mounted on a swivel; it sometimes takes the form of a heavy musket fired from a rest". More precisely, in the seventeenth- and eighteenth-century Europe, a wall gun was an oversized (matchlock or flintlock) musket, with a swivel mount, designed to be mounted or rested on a wall or parapet; it had a wooden stock

represented the most significant weapons, and the quality of the Tibetan troops' equipment seems to have been even a cause for envy among some of Tibet's neighbours.¹⁵

However, the situation in the nineteenth century, as described by Shakabpa Wangchuk Déden (Zhwa sgab pa dbang phyug bde ldan, 1907-1989), a historian and former Tibetan Minister of Finances (*rt-sis dpon*, 1939-50), seems quite less brilliant. Shakabpa records that in the war against Ladakh in 1842, Tibetan troops had at their disposal only a few locally produced matchlocks (*bod mda'*) and were fighting largely with "arrows, lances and swords, the three" (*mda' gri mdung gsum*) – the usual trilogy of weapons of Tibetan soldiers before the introduction of firearms –, while the Sikhs opponents fought with more modern firearms, referred to by Shakabpa as '*phrul mda'*' (*'phrul* literally designates a technological 'wonder', i.e. the mechanism through which the gun is actioned),¹⁶ which were probably flintlocks or percussion firearms.¹⁷ The Sikhs also used cannons (*me*

allowing use of the shoulder and a conventional musket-style lock and trigger. As for the swivel gun, it was a small artillery piece without a stock and so without a conventional trigger either, thus looking more like a small cannon (I am indebted in Jonathan Ferguson for these definitions of the swivel gun and the wall gun); see also online images of wall guns (for instance <https://collections.royalarmouries.org/object/rac-object-25086.html>) in the collections of the Royal armoury of Leeds, versus swivel guns in the same collections (for instance <https://collections.royalarmouries.org/object/rac-object-6760.html>). Waddell's description of the twentieth century *jingal* relates it rather to the swivel gun, while Petech's own description of the Tibetan *me'i mda' chen* in the eighteenth century as a "long-barrelled small-bore weapons", relates it rather to the wall gun (I am indebted in Donald La Rocca for pointing at this fact). For images of various specimen of Tibetan wallguns in the museum of Kathmandu, see Venturi's contribution in this issue (images 7a to c). It also has to be noted that the twentieth-century Tibetan historian Shakabpa used the Anglo-Indian word *jingal* (*'jin' gal zhes pa'i me mda'*) for weapons seized from the Chinese troops in 1912 (Zhwa sgab pa, *Bod kyi srid don rgyal rabs*, vol. 2, 212).

15 Petech is of the opinion that the Tibetan soldiers under Pho lha nas, at the time of the Dzungar invasion of Tibet in 1717-20, possessed more modern firearms than the Dzungars. Also, according to Petech, the Dzungars at that time did not yet benefit from the instruction famously given from 1716 onwards by the Swedish prisoner and artillery specialist Johan Gustaf Renat (Petech, *China and Tibet in the Early 18th Century*, 41; see also the introduction to this volume).

16 Zhwa sgab pa, *Bod kyi srid don rgyal rabs*, vol. 2, 4. The English translation by Derek Maher of this passage uses the term "mechanical guns": Shakabpa, *One Hundred Thousand Moons*, 582. It is interesting to see how the same Tibetan term of '*phrul mda'*' takes on successive meanings as technical advances are made and become known: as will be seen in the third part, '*phrul mda'*' would later, at the turn of the nineteenth and twentieth centuries, take on the meaning of 'breechloader'; later in the twenties, it will come to take on the new meaning of a semi-automatic magazine-fed gun and, again later, even of automatic machine guns.

17 Breechloading military rifles were a very new innovation in 1842 and probably had not reached the Sikhs by that time (I am indebted to Donald La Rocca for this information).



Figures 1-2 Breech area and detail of gold-inlaid Tibetan inscription on a musket barrel. Tibetan. Ca. eighteenth-nineteenth century. Iron, gold, and silver; overall length. 46 1/8 in. (117.2 cm); .65 caliber (17 mm). © The Metropolitan Museum of Art, Purchase, Arthur Ochs Sulzberger Gift, 2001 (2001.62)

sgyogs).¹⁸ Yet the related questions of when exactly the Tibetans first started importing firearms and first started manufacturing firearms themselves remain unanswered. Concerning self-production, while more ordinary production could well go back to the mid- to late seventeenth century,¹⁹ the earliest evidence of the desire for very high-quality local production is a musket barrel probably produced in the eighteenth or early nineteenth century kept at the Metropolitan Museum. It is inlaid in gold at its breech [fig. 1] with the phrase “forged in Tibet” (*bod brdungs yin*) [fig. 2].²⁰

In order to make some preliminary remarks on the chronology of firearms production and import in Tibet before the late nineteenth century, we will rely here on oral traditions reflected in several modern Tibetan accounts and on secondary sources. According to the account of the former General (*mda' dpon*, the highest-ranking Tibetan military officer)²¹ Taring Jikmé Sumtsen's (Phreng ring 'jigs med sum rtsen, 1908-1991),²² the most ancient type of firearms used in Tibet, those of the muzzle-loading type with gunpowder and bullet inserted into the muzzle (*me mda'i kha nang rdzas*), were still mostly imported in the eighteenth century.²³ Indeed, as underlined in his and in another Tibetan account authored by a former official who worked as a clerk (*dmag drung*) in the Army headquarters (*dmag spyi khang*), Nornang Ngawang Norbu (Nor nang ngag dbang nor bu, c. 1911-1989),²⁴ the var-

18 Shakabpa, *One Hundred Thousand Moons*, 582; Zhwa sgab pa, *Bod kyi srid don rgyal rabs*, vol. 2, 4.

19 According to Donald La Rocca (personal communication).

20 Metropolitan Museum of Art, accession number 2001.62, reproduced and analysed in La Rocca, *Warriors of the Himalayas*, 208 fn. 104. La Rocca comments on this weapon: “The pattern-welded twist of the barrel, the shape of the muzzle and the priming pan, and the style of the decoration suggest that this musket barrel was also the work of an Indian or Indian-trained craftsman, probably working in Lhasa during the eighteenth or nineteenth century”. I am indebted to Donald La Rocca for pointing at this particular piece and its significance.

21 On the organisation of the Tibetan troops, the officers' corps and their titles, see Travers, “The Tibetan Army of the Ganden Phodrang”.

22 Dates according to *Who's Who in Tibet*, 85 (IOR/L/P&S/20 D 220/2); and interview with Nor nang *dge bshes* ngag dbang blo gros (born 1924), Seattle, 2 and 04 October 2006. See Taring's account on the development of weaponry in Tibet up to the twentieth century written in 1933 and reproduced in Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 31-40 (and Gyaltse Namgyal Wangdue, *Political and Military History*, 26-31). The English translation of this book is in places not entirely faithful to the Tibetan original; in this paper the Tibetan version will always be mentioned first.

23 Taring's account as reproduced in Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 32 (and Gyaltse Namgyal Wangdue, *Political and Military History*, 27).

24 Nornang's account as reproduced in Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 46-79 (and Gyaltse Namgyal Wangdue, *Political and Military History*, 36-48). Regarding the rest of his career as a government official, Brit-

ious names of a number of pre-twentieth century Tibetan-made matchlocks include *sog* or *hor*, a Tibetan term designating Mongols: *sog chu bab*, *sog pho mo g.yas bcus*, *sog pho mo g.yon bcus*, *sog gling bzhi ma*, *sog dar ma chu 'bab*, *sog sgam mda' ma*, *hor nya mig ma*, and *dzam grags*.²⁵ The reason could be that the firearms of that time were either imported by Mongolians and/or modelled after Mongolian prototypes.²⁶

According to Taring, the Tibetan government started only later – by which he seems to mean the early nineteenth century – to manufacture its own matchlocks and ammunition in large quantities,²⁷ with the result that

ish archives contain the following note: “Nornang-pa. Personal name Ngawang Norbu. Born 1911. Entered Government service in 1935. Made a clerk in the Army office. Appointed Dzong-pon of Saka in W. Tibet in 1945. Appointed Dzongpon of Gyantse in June 1950. Appointed an assistant to Tibetan Trade Mission at Kalimpong, June 1952”, cf. *Who's Who in Tibet*, 85 (IOR/L/P&S/20 D 220/2).

25 Nornang's account as reproduced in Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 63 (and Gyaltshe Namgyal Wangdue, *Political and Military History*, 46). The last term *dzam grags* denotes a firearm named *dzanbara*, which was used by the Dzungars during their 1719 invasion of Tibet, see Shim, “The Zunghar Conquest of Central Tibet”, 100. According to Shim, it was first invented by Mamluk soldiers in Egypt in the sixteenth century (*zanbūr* in Persian), and was “bigger than an ordinary musket and smaller than a cannon. Therefore, it had greater destructive power and a longer range than a normal musket, while being easier to transport and manoeuvre than a cannon” (Shim, “The Zunghar Conquest of Central Tibet”, 100). A few of these firearms (under the name *'dzam rags* / *'dzam reg*) are already mentioned in the biography of the Sixth Dalai Lama (1683-1706) in a list of gifts received in 1700, which indicates at least a minimal knowledge and limited use of such a weapon in Tibet prior to the Dzungar invasion in 1719 (Sde srid sangs rgyas rgya mtsho, *Sku phreng drug pa'i rnam thar*, 630). Last, this weapon (*dzam grags*) is described by the Thirteenth Dalai Lama in his “Preamble to the book of Tibetan-made machine guns, for the Tibetan Army commanding officers' bureau” as having been produced by Tibetans themselves for a time (*bod rje mi dbang gi dus*) which might correspond to Pho lha nas' rule, i.e. 1727-47 (Venturi, “The Thirteenth Dalai Lama on Warfare”, 498). The description of the Mongolian *dzanbara* in Hosung Shim (bigger than a musket and smaller than a cannon) corresponds very closely to that of the above-mentioned Tibetan *me'i mda' chen* and the later Indian term *jingal* (being either a wall gun or a swivel gun) mentioned by Petech as being used by Tibetans already in 1720-27. All those terms might thus be synonyms, or terms of different etymology used to designate the same firearm (I am indebted to Federica Venturi for this suggestion). Nonetheless, the fact that two sources dating from the early eighteenth century use two different names – *me'i mda' chen po* in the *Mi dbang rtogs brjod* and *'dzam rags* in the Sixth Dalai Lama's biography – and that two different sources from the early twentieth century do the same (regarding a 1912 event as will be seen later), *dzam grags* in the Thirteenth Dalai Lama's writings quoted by Venturi and *'jin 'gal* in Zhwa sgab pa (*Bod kyi srid don rgyal rabs*, vol. 2, 212), could also point to the opposite.

26 Taring hypothesises that this designation came about because their first models were seized from the Dzungar Mongols in the early eighteenth century; Taring's account as reproduced in Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 32 (and Gyaltshe Namgyal Wangdue, *Political and Military History*, 27).

27 Taring does not give any specific date but his chronological narrative leads one to believe that he is speaking of the early nineteenth century; Taring's account as reproduced in Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 32 (and Gyaltshe Namgyal Wangdue, *Political and Military History*, 27).



Figure 3 Example of a Tibetan matchlock musket, nineteenth century. © The Metropolitan Museum of Art, Bequest of George C. Stone, 1935 (36.25.2174)

during the Tibetan-Gurkha War in 1854 and Tibetan-British battles in 1888 at Lungtur and other border places of Tibet, the Tibetan army used indigenous guns (*bod bzos me mda'*)²⁸ and indigenous cannon (*bod bzos me sgyogs*).²⁹

As previously mentioned, Shakabpa records that Tibetan-made guns (*bod mda'*) had been used even a little earlier, in the war against Ladakh in 1842.³⁰

The local production comprised not only matchlocks (see [fig. 3]) but also heavy cannon and bullets: Shakabpa writes that two Tibetan-made cannons of a type known as *se hril* were seized by the British during the first Anglo-Tibetan war in 1888.³¹ Taring provides a list of cannons produced and used against the British in 1888 and 1904. Like in other countries, individual cannons received proper names and the list includes, in addition to *se ril* [sic], *srin mo bgres gzhon*, *kha 'bar ma*, *gnam lcags*, *lkug pa*, and *lcam sing*, the memory of which was kept alive as these cannons continued to be fired dur-

28 On Tibetan-made muzzleloaders, also referred to as *bog*, see Tashi Tsering Josayma's paper in this issue.

29 Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 32 (and Gyaltshe Namgyal Wangdue, *Political and Military History*, 27).

30 Shakabpa, *One Hundred Thousand Moons*, 582; Zhwa sgab pa, *Bod kyi srid don rgyal rabs*, vol. 2, 4.

31 An episode that was recorded in a Lhasa street song; Shakabpa, *One Hundred Thousand Moons*, 648; Zhwa sgab pa, *Bod kyi srid don rgyal rabs*, vol. 2, 90.

ing the Monlam Festival in Lhasa into the early twentieth century.³²

However, already in the nineteenth century local production appears not to have been an efficient means for Tibetans to keep pace with the then rapid modernisation of firearms. Petech records that in 1864, “bŠad-sgra [the then regent of Tibet] had approached the Nepalese government for the loan of some modern artillery, of which Tibet had none” and that in the end Jang Bahadur agreed to a loan of six mountain guns.³³ In 1882, when Sarat Chandra Das entered Tibet, he noticed that the regular Tibetan army and the militia were armed with “matchlocks, bows and arrows, long spears, and slings (*ordo*)”.³⁴ The first Anglo-Tibetan war in 1888 was certainly instrumental in making Tibetans realise the inadequacy of their locally produced firearms. Taring mentions a first subsequent technical innovation taking place around 1890 with the production of a new type of cannon called the *gor kha yang chan*,³⁵ which had, according to his description, a “cap” (also called *kro pi*) for the gunpowder and did not need a “*bud rti* (?)”.³⁶ From 1895 onwards during the reign of the Thirteenth Dalai Lama, a number of initiatives were undertaken further to develop and to improve local production.

32 Taring’s account as reproduced in Rgyal rtse rnam rgyal dbang ’dus, *Bod rgyal khab kyī dmag don lo rgyus*, vol. 1, 32-3 (and Gyaltshe Namgyal Wangdue, *Political and Military History*, 27). Interestingly, some of the Tibetan cannons used against the British during the siege of Gyantse were also baptised by the British: they christened one *jingal* that had a longer range than the other guns ‘Chota Billy’ or ‘Little Billy’ (by comparison with a bigger piece of artillery they had baptised ‘Billy’) (Landon, *Lhasa*, vol. 1, 335).

33 Petech, *Aristocracy and Government in Tibet*, 179 fn. 1 (emphasis added). Petech quotes as his sources “Rose” (Rose, *Nepal*), 122 and “MTSL” (an abbreviation for his reference to *Ta-Ch’ing li-ch’ao shih-lu*, Mu-tsung), 86.44a-45v, 86.48a, 111.7b-8a, 115.13b-14a, 260.3a-b, 260. 25a-b. A mountain gun designates a gun capable of being dismantled for easier transportation in mountainous terrain by mule, horse or other pack animal.

34 Das, *A Journey to Lhasa*, 161.

35 The recurrent use of *yang chan* / *yang can* / *yang chang* most probably derives from the phonetic rendering of the Chinese term *yangqiang* 洋槍 which designated a Western-style gun.

36 Taring’s account as reproduced in Rgyal rtse rnam rgyal dbang ’dus, *Bod rgyal khab kyī dmag don lo rgyus*, vol. 1, 33. The Tibetan reads: *sna (rna) rdzas la kro pi zhes pa / dbyin skad la keb g.yog ste ’bud rti ma dgos pa*. However, both the Tibetan original and the translation in the English version of the book remain unclear: we read that the *gor kha yang chan* had “a lid (called *kro pi* in Nepali and cap in English) and did not need an igniter” (Gyaltshe Namgyal Wangdue, *Political and Military History*, 27). The exact nature of the English term ‘cap’ here is not clear: if it was a percussion cap, it was already old technology in 1890, but it could design the primer; the translation by Yeshe Dhondup of ‘*bud rti*’ as ‘igniter’ requires also some comments, as all guns need some form of ignition. The ‘igniter’ here could design the ‘friction tube’. If so, the innovation referred to here could be the replacement of a friction tube primer (a copper tube of gunpowder inserted into the vent and fired with a lanyard [pull-cord]) with a more modern system such as a self-contained cartridge. The *gor kha yang chan* could thus have been a modern mountain gun (I am thankful to Jonathan Ferguson for his explanations and suggestions on the interpretation of this passage).

3 Local Manufacture of Firearms in Tibet (1895-1950). The Search for Self-Sufficiency

The reign of the Thirteenth Dalai Lama (1895-1933), whose personal interest in military matters and firearms no longer requires demonstration,³⁷ truly represents a new chapter in the local production of firearms. It saw the establishment of at least three new weapons factories – successively moved to three different locations in and around Lhasa, see [tab. 1] at the end of section 3 – and attempts to procure foreign gunnery specialists both from British India and from China in order to locally produce modern weapons that take into account contemporary technological innovations, leading to the manufacture of breech-loading long guns of various types in Tibet.

3.1 Local Production During the First Years of the Thirteenth Dalai Lama's Rule (1895-1903)

The above-mentioned Tibetan accounts describe places where indigenous powder, guns and cannon were produced in Lhasa. Nornang mentions the existence, during his childhood, of an ancient “gunpowder house” (*rdzas khang*) called the “Medicinal spring gunpowder house” (*Sman chu rdzas khang*) located behind one of Lhasa's three main hills, the Chakpori (*Lcags po ri*) next to the Potala.³⁸ Later on, when he was employed at the Army Office (1935-45), this place had become an armoury called the “Medicinal spring armoury” (*Sman chu go mdzod*), from where gunpowder was brought to produce bullets that were then stored in the Dorjéling armoury (*Rdo rje gling go mdzod*) [fig. 4].³⁹

³⁷ See the translation by Federica Venturi of four significant texts authored by the Thirteenth Dalai Lama and dated 1916, which provide insight into some of the weapons stored at this time in the Ganden Phodrang main armoury, the Dorjéling armoury, comprising arms both produced and imported by Tibetans; these texts manifest the obviously strong interest of the highest Tibetan hierarch in weapons and military technological matters (Venturi, “The Thirteenth Dalai Lama on Warfare”).

³⁸ Nornang's account as reproduced in Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 62 (and Gyaltse Namgyal Wangdue, *Political and Military History*, 46). It is not known how long this powder house stood in Lhasa, but with Nornang being born around 1911, his childhood coincides with Charles Bell's mission to Lhasa in 1920-21 when it was photographed and labelled as a “powder magazine at foot of Chakpori used for storing gunpowder”; see [fig. 4] in this paper. On the map entitled “Central part of Lhasa” drawn by Zasad J. Taring in 1959 (reproduced in Larsen, Sinding-Larsen, *The Lhasa Atlas*, 30), the exact location of this Medicinal spring or “Menchu” (*Sman chu*) itself is shown at the north-eastern foot of Chakpori, and just south of the West Gate of Lhasa (*Bargo Kani*).

³⁹ Nornang's account as reproduced in Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 62 (and Gyaltse Namgyal Wangdue, *Political and Mil-*



Figure 4 “Chakpori Powder Magazine”. Photograph by Rabden Lepcha?, 1920-21, Coll. Sir Charles Bell, PRM 1998.286.47

Taring and Nornang both describe as a first significant step the Thirteenth Dalai Lama's creation of a new weapons factory (*bzo grwa*) near Drip (Grib) monastery and located just outside Lhasa on the southern bank of the Kyichu (Skyid chu) River sometime between 1895 and 1900.⁴⁰ The factory is said to have produced ammunition

itary History, 46). On the creation of the Dorjéling armoury under the Fifth Dalai Lama, see Venturi in this issue. Nornang interestingly lists the different “places where weapons were kept” (*go lag 'jog yul*) by the Tibetan government that he himself witnessed in the early twentieth century. Some were located in Lhasa: in addition to the Dorjéling armoury and the Sman chu go mdzod, there were the Dgra 'dul khang in the Potala, the Zhol dngul dpar khang, the Rtse bde yangs shar 'og thog and the Summer Palace (Nor bu gling ka). In the provinces, weapons were stored in the headquarters of the Commissioner of Eastern Tibet (Mdo spyi), of the Commissioner of Western Tibet (Stod sgar dpon) and of the Commissioner of Northern Tibet (Byang spyi), as well as in some monasteries, like Shangs dga' ldan chos 'khor, and in the *bkar khang* (storehouse) of some District headquarters where needed, for instance Lha rtse rdzong or Rgyal rtse rdzong. He concludes that all these places and any place where the government had to store weapons at some point were considered proper ‘armouries’ (*go mdzod*); Nornang's account as reproduced in Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 65 (and Gyaltsé Namgyal Wangdue, *Political and Military History*, 47).

⁴⁰ Taring's account as reproduced in Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 33 (and Gyaltsé Namgyal Wangdue, *Political and Military History*, 27); Nornang's account as reproduced in Rgyal rtse rnam rgyal dbang

(*me mdel* or *mde'u*), but most importantly, it manufactured in a large quantity the first Tibetan modern guns (*'phrul mda' / me mda' 'phrul mda'*),⁴¹ one of which had a magazine for thirteen bullets.⁴² Among them, one type was called the *grib yang chan*, and is said to have been made after a Chinese model.⁴³ A number of other firearms produced in Drib and described in these accounts bore Chinese sounding names like *cu rtsi pa'o* and *dbu zhang*.⁴⁴ Nothing else is said about this new factory in these Tibetan oral history-based accounts. That the three authors were born in the early years of the twentieth century (Shakabpa in 1907, Taring in 1908 and Nornang in 1911) speaks for a relatively high degree of reliability regarding the facts they present for the late nineteenth and early twentieth century, just one generation before their own. Their narratives turn also to first-hand testimonies for the twenties and onwards. Nevertheless, accounts of this type – based on memory and written decades after the period of time in question – always potentially contain some uncertainties.

The British archives shed some additional and a stronger, though fragmented light on Tibet's early experience with weapons manufacture. The first attempt during the reign of the Thirteenth Dalai Lama is dated July 1896: an intelligence report of the British Resident in Nepal (in an account found in the National Archives of India) describes the "reported arrival of sixteen Muslims [from India, as we

'*dus, Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 64 (and Gyaltse Namgyal Wangdue, *Political and Military History*, 46).

41 At that time and given the description of the thirteen bullets, the term could designate a bolt-action rifle. As underlined above, this term will later take a new meaning in the twenties as 'automatic weapon', to designate a rifle designed for sustained automatic fire that had either an interchangeable barrel chamber or was magazine-fed.

42 Nornang's account as reproduced in *Rgyal rtse rnam rgyal dbang 'dus, Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 64 (and Gyaltse Namgyal Wangdue, *Political and Military History*, 46).

43 Bla phyag mkhan chung thub bstan bstan pa, "Grwa bzhi glog 'phrul khang", 109.

44 Taring's account as reproduced in *Rgyal rtse rnam rgyal dbang 'dus, Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 33 (and Gyaltse Namgyal Wangdue, *Political and Military History*, 27). The name *cu rtsi pa'o* probably comes from the Chinese *zhujiepa* 竹節炮, for a cannon looking like a bamboo tube (with ring-nodes), which was a very widespread type; and *dbu zhang*, from *buqiang* 步槍, a general Chinese word designating a musket or rifle. I am grateful towards Ulrich Theobald for his help with identifying the Chinese origin of these words. The term *dbu zhang* seems to have been commonly used in Tibet in the early twentieth century for firearms: similar names (*me mda' U-u-shang*, *cu'u shang*, *ru shang*) appear indeed in the list of weapons in the Thirteenth Dalai Lama's texts dated 1916 (Venturi, "The Thirteenth Dalai Lama on Warfare", 490). Interestingly, a gun of seemingly larger size (because they were seized in much smaller quantities) than the usual *me mda'* called *me U shang* still appears amongst weapons seized by Tibetans from Chinese soldiers in the 1950 fightings (cf. *Ru dpon bsod nams bkra shis, Bod dmag gcig gi mi tshé*, 34).

will see below] in Lhasa to set up an arms factory there".⁴⁵ It seems to have not turned out well, since another report by the Political Officer in Sikkim dated two years later, in July 1898, records that these gunmakers, under the responsibility of two men named Abdul Aziz and Jamaluddin "had been put in jail on account of the failure of their arms, which were so bad that many of them had burst and the others were not firing straight".⁴⁶ Although these two British reports do not give any precise location, their date point to the possibility that this arms factory could be the Drip factory mentioned above. This hypothesis is confirmed by the account of Ekai Kawaguchi, a Japanese monk residing in Lhasa, who brings additional information on the production of firearms at Drip in November 1901, when he met:

a Tibetan trader with whom [Kawaguchi] had become acquainted at Darjeeling. This man started for Calcutta on Government business to buy iron [...]. The iron which he was commissioned to procure was for the purpose of manufacturing small arms at an arsenal situated at Dib near Che-Cho-ling, on the bank of the river Kichu, which flows to the south of Lhasa.

This industry was an innovation in Tibet, and in fact had begun only about eight years before that time.⁴⁷ It was introduced by a Tibetan named Lha Tse-ring who had lived for a long time at Darjeeling and, at the request of his Government, brought back with him about ten gunsmiths, mostly Hindū and Cashmere Mohamedans. Only two of these smiths remained in Tibet at the time I reached Lhasa, the rest having returned home or died; but as several of the Tibetan smiths had acquired the art from them, no inconvenience was experienced in continuing the industry. This was a great improvement on the old state of affairs, for Tibet had formerly possessed only *flint-lock muskets* [emphasis added: erroneous translation; it should read 'matchlock' or 'musket'],⁴⁸ and even

⁴⁵ Extract from a Semi-Official Letter by Colonel H. Wylie, CSI, Resident in Nepal (to the Assistant Secretary), Dated the 23rd (Received 29th) July 1896 (NAI, Sec. E., October 1896, 100 to 101).

⁴⁶ Extract of the Diary of the Political Officer in Sikkim from 10th to 16th January 1898 (NAI, Sec. E., April 1898, 1 to 10).

⁴⁷ If accurate, this information implies that the creation of the Drip Arsenal dated back to 1892 with the arrival of a first batch of Indian gunsmiths and that the above-mentioned arrival of sixteen Muslims in 1896 was in reality the second batch of gunsmiths.

⁴⁸ After enquiry, it appears that the term 'flint-lock', used in the English translation of Kawaguchi's book published in 1909, is not correct. In the Japanese original version, Ekai Kawaguchi wrote *hinawajū* (火繩銃) (I would like to thank my colleague Ryosuke Kobayashi in the 'TibArmy' project for having kindly identified the Japanese term for me). According to Markus Sesko (Visiting Researcher, Japanese Arms and Armor, Department of Arms and Armor at the Metropolitan Museum, whom I thank for having

these could not easily be introduced from India. The manufacture of improved firearms was therefore a great boon to the country, and the Government did not spare expense and trouble to encourage the development of the art. Hence it came about that my acquaintance was authorised by the Government to proceed to Calcutta and procure a supply of iron.⁴⁹

On the situation after 1901, other British archival documents shed light: one of them discloses that in early 1903, three Chinese men were manufacturing weapons in Lhasa for the Tibetan government,⁵⁰ which is a further confirmation that modern firearms of the time were produced according to a Chinese model. It is no surprise that the Tibetan government took Chinese, as well as Indian, weapons as models for its own production given the political relationship of Tibet and the Qing Empire at that time, Tibet being a Manchu protectorate and there being a Chinese military garrison in Lhasa.

Two years later in 1905 – after the British defeat of the Tibetan troops in 1904 – a Muslim gun manufacturer (whose country of origin is not given, possibly again from India) is reported in British archives to be back working in Lhasa and producing modern weapons; this time the weapons factory is precisely referred to as the “Dekyiling [Bde skyid gling] firearms factory”. The report also adds that blacksmiths had now been engaged and that the Tibetan government hoped to resume manufacturing firearms “by the 5th of this month” [March 1905].⁵¹ There is indeed a place with the name “Dekyiling” shown on a plan drawn by members of the 1904 Younghusband expedition, Major C.H.D. Ryder and Captain H.M. Cowie, which is located just on the southern bank of the Kyichu river.⁵² Connected to

provided the following explanation on the meaning and use of this term in Japanese), *hinawajū* means literally a ‘gun (*jū*) with a fuse (*hinawa*)’ and always designates a matchlock; it is sometimes translated by the more general term ‘musket’, but it cannot designate a flintlock, for which other Japanese terminology is used.

49 Kawaguchi, *Three Years in Tibet*, 447-8.

50 *Letter from E.H.C. Walsh, Esq., Deputy Commissioner of Darjeeling to the Chief Secretary to the Government of Bengal, Dated the 26th January 1903, Darjeeling: Strength of the Tibetan Army at Lhasa and other towns in Tibet/Pay of the soldiers in Tibet* (NAI, Sec E, April 1903, 1-22).

51 *Frontier Confidential Report no. 17, 20th April 1905, from Charles Bell Assistant Political Agent, Chumbi, to the Political Agent, Sikkim: Number of troops at Lhasa* (NAI, Sec. E, August 1904, 231-46).

52 “Plan of Lhasa, from a Survey by Major C.H.D. Ryder R.E., D.S.O. and Captain H.M. Cowie R.E., 1904” reproduced in Larsen, Sinding-Larsen, *The Lhasa Atlas*, 23: see the caption no. 52 “De-kyi-linga”. This place should not be confused with the homonymous place belonging to Kundeling *labrang* where the British Mission was installed after 1936, which is located on the southwestern foot of Chakpori (appearing also on the same 1904 map, under caption no. 5 as “De-Kyi Linga”). Bde skyid gling is a common

the other bank of the city by ferry, this location is confirmed in yet another British map drawn at the same time by Waddell as being an “arsenal”.⁵³ Whether the “Dekyiling factory” quoted in British intelligence and maps for 1904-05 and the “Drip factory” of the Tibetan accounts are identical seems probable, given the striking geographic proximity of the two places on the maps.

British intelligence reports from the eve of the Younghusband expedition are an interesting source on the state of weaponry in Tibet in 1903. Just prior to the expedition, the British were of the opinion that such modern rifles produced in Lhasa were available in great quantity: they wrote that all the troops were “armed with modern pattern rifles made at the Lhasa arsenal” and that “even those Tibetan soldiers who ha[d] their former old pattern guns ha[d] new pattern rifles as well”,⁵⁴ a statement that might have been partly exaggerated, as we will see below.

In any case, the quality of the local production achieved renown even beyond Tibet’s borders: the Bhutanese Dzungpon of Thimphu ‘borrowed’ one of the two Indian blacksmiths working at the Lhasa arsenal to boost their own local firearms production, after having seen him work in Lhasa in 1903.⁵⁵

However, the most detailed descriptions on the nature of Tibetan troops’ firearms and the quality of their locally produced weapons are to be found in the reports actually written during the Younghusband expedition. As will be seen, they display a somewhat ambivalent point of view on the part of the victorious Anglo-Indian soldiers, depending on the witness, expressing both appreciation of the modernity of the equipment and disdain regarding its number, quality and use.

toponym in Tibet and a third location is known by the same name in the Zhol area of Lhasa, designating the Zhol prison.

53 “Sketch map of the Environs of Lhasa” by Waddell, 1905, reproduced in Larsen, Sinding-Larsen, *The Lhasa Atlas*, 24.

54 Discussion with Phalese, Elder Brother of the Tibetan army Phogpon, Letter from E.H.C. Walsh, Esq., Deputy Commissioner of Darjeeling to the Chief Secretary to the Government of Bengal, Dated the 26th January 1903, *Darjeeling: Strength of the Tibetan Army at Lhasa and Other Towns in Tibet/Pay of the Soldiers in Tibet* (NAL, Sec. E, April 1903, 1 to 22).

55 Tshering Tashi, “Muhammadan, *The Muslim Gunsmith of Bhutan*”. I am grateful to Tshering Tashi for sharing this unpublished paper with me. Tshering Tashi is of the opinion that the Indian Muslim came from Kashmir, Srinagar being well-known for its gunsmiths.



Figure 5 Example of a Martini-Henry rifle (breechloader): Martini-Henry MK.1.
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3.2 The ‘Test of Fire’ During the Younghusband Expedition and the Subsequent Modernisation of Weapons Manufacture Under the Qing Aegis (1903-11)

Published and unpublished reports by Anglo-Indian members of the ‘Tibet Mission Force’, composed of several units (23rd and 32nd Sikh Pioneers, the eighth Gurkha Rifles, the Northfolk Maxim detachment), describe the Tibetan army fighting with a variety of modern rifles (among which were breechloading rifles, both single-shot and bolt-action repeaters), either produced in Lhasa or imported (about which more will be said in the following section), as well as traditional matchlocks and swords.⁵⁶ The diversity of the Tibetan fighters’ equipment seems to have mainly depended on the nature of the combatants. The Younghusband expedition indeed fought partly against regular troops and military officers of the Tibetan government but also against regional levies usually referred to as the ‘militia’ and volunteers.⁵⁷ While the latter fought only with old matchlocks and swords,⁵⁸ the regular Tibetan soldiers were equipped with the modern firearms mentioned above. According to reports by members of the expedition, the gunsmiths at the arsenal were producing good copies of the British Martini-Henry rifle (see [fig. 5]), a regulation military weapon, which were lethal at a range of over 1,200 yards (although effective range, even fired *en masse*, was around 700 yards).⁵⁹

⁵⁶ See in particular the accounts and references to firearms quoted in the present paper and those found in the books published by Candler, Landon, Waddell, Rahul (reproducing the *32nd Sikh Pioneers Regimental History*), Younghusband (Coates, *The British Invasion of Tibet*), and Ottley, *With Mounted Infantry in Tibet*. I am grateful to Donald La Rocca for pointing out the last two sources to me.

⁵⁷ To give an example, during the 5 May 1904 attack on the British camp at Gyantse, the Tibetan troops comprised 1,600 soldiers of the regular regiments of Gyantse and Shigatse, supplemented by militia (Waddell, *Lhasa and Its Mysteries*, 382).

⁵⁸ Landon, *Lhasa*, vol. 1, 145.

⁵⁹ Waddell, *Lhasa and Its Mysteries*, 383. The Martini-Henry was a breech-loading single-shot lever-actuated rifle, with a ‘tilting bolt’ mechanism, in service in the Brit-

A large number of modern rifles of Lhasa manufacture were found at Guru. These are of the old Martini pattern, and are made at Lhasa by two Mohammedan artisans from India, who have been engaged for over ten years in the arsenal of the sacred city. They have, it seems, been making periodical visits to Calcutta and smuggling back the necessary materials. Some of these rifles they have made are fairly well finished with back-sights, and they throw bullets over three-quarters of a mile or more. Their cartridge-cases are formed by spirally twisted brass plate. Altogether, these weapons are of fairly modern pattern and are not to be despised.⁶⁰

Younghusband's account in August 1903 reports that the British were informed from a reliable source on the field that the Tibetan army had been issued 2,000 rifles manufactured at Lhasa (1,000 for the Lhasa command and 500 each to the Phari and Shigatse command).⁶¹ According to the historian Ram Rahul, these modern small arms "were an enormous improvement on the old swords, spears, flint-lock [sic] muskets, and muzzle-loading matchlocks".⁶² Rahul quotes from the memoir of one soldier from the 32nd Sikh Pioneers Regiment who fought on the British side in 1904 and wrote in 1905: "the range and severity of the fire developed by the enemy left little doubt of his being in possession of a large number of breech-loaders, and of his understanding how to use them with telling effect".⁶³ However, some reports convey some level of disdain. Younghusband heard from a trusted informant that the locally produced rifles were "of the gas-pipe order [i.e. cheaply made]" and that "several of them had burst at practice".⁶⁴ Edmund Candler also wrote:

Soon after they had disappeared another group of horsemen were seen riding towards us. These proved to be the Lhasa Depon [*mda' dpon*, i.e. General], accompanied by an influential Lama and a small escort armed with modern rifles. The rifles were naturally inspected with great interest. They were of different patterns—Martini-Henry [tilting block type], Lee-Metford [bolt-action type],

ish army from 1871 to 1918, when it was replaced by the Lee-Metford (bolt-action) rifle. See also Fowler et al., *The Illustrated World Encyclopedia of Guns*, 282.

60 Waddell, *Lhasa and Its Mysteries*, 269.

61 Coates, *The British Invasion of Tibet*, 88, 93, 101.

62 Rahul, *The Government and Politics of Tibet*, 68.

63 Rahul, *The Government and Politics of Tibet*, 68 quoting "Sikkim and Tibet, 1903-1904". *32nd Sikh Pioneers Regimental History*. London, 1905, vol. 2, 33-4.

64 Coates, *The British Invasion of Tibet*, 96.

Snider,⁶⁵ – but the clumsily-painted stocks alone were enough to show that they were shoddy weapons of native manufacture. They left no mark on our troops.⁶⁶

The subsequent defeat of the Tibetan troops when faced with the firepower of the British expedition showed the Tibetans (and their Manchu overlord) that the firearms modernisation efforts made in the last decade had not been sufficient, not only in terms of quantity (hence the great number of old matchlocks still in use at that time) but also quality. This was the second time within a short period that Tibet was defeated by British India because of the technological (as well as structural) inferiority of their military, the first time being the 1888 first Tibeto-English war on the border with Sikkim.⁶⁷ In the exact same way that the First Opium war (1839-42) had revealed to Qing China their military backwardness compared to European countries and opened the way for subsequent reforms after the Second Opium War (1856-60),⁶⁸ Tibet's two successive defeats by the British, only 50 years later after China's, served as a catalyst for Tibet to attempt to modernise its military firepower.

After the Younghusband expedition, during the last years of the Sino-Manchu Empire and thus of the Sino-Manchu protectorate over Tibet, new steps were taken to ramp up local production, as part of a larger plan of modernising the Tibetan army which was launched by the Sino-Manchu authorities in Lhasa in 1906-07.⁶⁹ This larger Qing plan, as reported in British archives, included the creation of a military college, the raising of more troops, and the training of Tibetan troops by instructors hired in China, Japan, etc.;⁷⁰ the sources also

65 The Snider was a pivoting block conversion of the muzzle-loading Enfield rifle. It was approved for British service in 1864 and so predates both the Martini and Metford rifles (I am grateful to Jonathan Ferguson for providing this information). It was replaced by the Martini-Henry in the British army in 1871, see Fowler et al., *The Illustrated World Encyclopedia of Guns*, 282.

66 Candler, *The Unveiling of Lhasa*, 102.

67 On which see Stoddard, "The Great 'Phi gling dmag zlog' of 1888".

68 Andrade, *The Gunpowder Age*, 257-96.

69 Ryosuke Kobayashi has shown that in the wake of the British invasion of Lhasa in 1904 and to increase the Qing's military presence in Tibet, the *amban* Zhang Yintang (1860-1935) implemented military reforms in Tibet, in particular aimed at strengthening Tibetan forces through military training, education, and conscription. Provision with modern firearms such as Gatling guns and mountain guns is quoted as part of Zhang Yintang's plan (Kobayashi, "Zhang Yintang's Military Reforms", 317), but it remains uncertain whether this aspect was implemented and if Gatling guns, one of the first hand-driven machine guns invented by an American in 1862, were eventually brought to Tibet.

70 *Extract from a Letter from the Resident in Nepal, no. 92, Dated the 10th July 1908: Proposed Establishment of a Military College in Tibet* (NAI, Sec. E, September 1908, 113-34).

detail the subsequent arrival of several drill instructors, two known by name, Hsü and Wu, who were trained in Japan,⁷¹ as well as one Japanese drill instructor,⁷² and the creation of a Tibetan police force dressed in Japanese uniform.⁷³ Last, they document the help provided then by the Qing to improve local weapons manufacture: British accounts from February 1908 state that gunsmiths were reported to be coming from China to Lhasa to work in the Arsenal.⁷⁴

One Tibetan archive document reproduced in a recent publication also bears witness to the efforts made by the Tibetan and Sino-Manchu authorities to regulate the manufacture of firearms and ammunition. This document dated the ninth day of the 2nd month of the Iron Dog year (1910)⁷⁵ forbids, by order of the Qing Emperor transmitted through the *amban*, Tibetan subjects (*mnga' khongs mi ser*) from privately manufacturing (*bzo*) military equipment (*dgra chas*) such as cannons (*me sgyogs*) and guns (*me mda'*) or from possessing military equipment (*dmag mi'i dgra chas nyar tshags*). Anyone found to be in violation of this law was to be severely punished. The problem of the shortage of weapons, which will remain a recurrent one, becomes apparent in this document.

71 *Frontier Confidential Report no. 88, from Captain W.L. Campbell, British Trade Agent, Yatung to the Political Officer of Sikkim* (NAI, Sec. E, September 1908, 113-34).

72 *Newsletters Regarding Affairs in Tibet, Dated the 14th November 1908, Gangtok, from C.A. Bell, Political Officer of Sikkim to the Deputy Secretary to the Government of India in the Foreign Department: Report Regarding the Presence of a Japanese Drill Instructor in Lhasa* (NAI, Sec. E, February 1909, 671-3).

73 *Frontier Confidential Report no. 88, from Captain W.L. Campbell, British Trade Agent, Yatung to the Political Officer of Sikkim* (NAI, Sec. E, September 1908, 113-34). To understand how the Sino-Manchu reforms implemented in Tibet at the time were inspired by the Japanese military model, see Kobayashi, "Zhang Yintang's Military Reforms".

74 *Proposed Establishment of a Military College in Tibet, Extract from a Letter from the Resident in Nepal, no. 92, Dated the 10th July 1908* (NAI, Sec. E, September 1908, 113-34, 123); *Importation of Arms into Lhasa, 1908* (NAI, ExtI, May 1908, 108-10, Part B).

75 A facsimile of the document is published as document 157, *Qingdai Xizang difang dang'an wenxian xuanbian*, Xizang Zizhiqiu dang'an guanbian. Beijing: Zhongguo Zangxue chubanshe, 2017, vol. 1, 577 and vol. 3, 732. I have included a Tibetan transliteration of the document as an appendix to this paper (Appendix 2).

3.3 The Rise of a New Enemy on the Eastern Border and the Creation of a New Factory (1912-30)

After the expulsion of the last Sino-Manchu representatives and soldiers from Tibet in 1912 following the end of the Qing dynasty in China, Tibetans continued to produce cannons, small arms, and ammunition on their own: two successive new arsenals were created by the Thirteenth Dalai Lama, who had been very impressed by the arsenals he had visited during his exile in India (precipitated by Chao Er-feng's 1910 invasion of Lhasa). The new need that arose – to be able to defend the country militarily against Chinese incursions – urged on efforts to further modernise weapons production,⁷⁶ and the chosen place for this to happen seems to have been related to the former Chinese *amban* quarters.

Tibetan sources provide individual elements of the picture surrounding the opening of the first new firearms factory. According to Shakabpa, a factory (*'phrul bzo khang*) that produced weapons and money was founded in a place called Métok kyitsel (Me tog skyid tshal, also referred to as Me skyid, lit. 'flower garden').⁷⁷ Another Tibetan account records Métok kyitsel as the new name given to the old Drip factory (*bzo grwa*) after the latter was shifted to the Lugu (Klu sgug khul [or Klu sbug])⁷⁸ area in Lhasa.⁷⁹ A third Tibetan account gives the exact year, stating that a so-called "Yamön factory" (Ya mon 'phrul bzo khang) was established in 1914 and headed by two officials recorded as *mkhan drung ta'a bla ma* and *Bhum pa sras*; it produced modern firearms called *'phrul mda' yang chang* (probably designating a type of breech-loading long gun, like a bolt-ac-

⁷⁶ Bla phyag mkhan chung thub bstan bstan pa, "Grwa bzhi glog 'phrul khang", 98.

⁷⁷ The exact date of its foundation is not recorded but chronologically it appears to be between the departure of the Sino-Manchu residing in Lhasa (i.e. 1911) and 1915; Shakabpa, *One Hundred Thousand Moons*, 804, 821; Zhwa sgab pa, *Bod kyi srid don rgyal rabs*, vol. 2, 271, 296.

⁷⁸ According to Dung dkar, over time Klu sgug came to be pronounced and written Klu sbug; the place is described as being located "between the Chakpori and the Jokhang" (Dung dkar, *Tshig mdzod chen mo*, 122). It is alternatively described as a "meadow south of Potala", famous for the annual State ceremony held there called the "preparation of the camp at Lubu" (Klu sbug sgar sgrigs); see Richardson, *Ceremonies of the Lhasa Year*, 130.

⁷⁹ Bla phyag mkhan chung thub bstan bstan pa, "Grwa bzhi glog 'phrul khang", 108 and Nornang's account as reproduced in Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 64 (and Gyaltse Namgyal Wangdue, *Political and Military History*, 46). It was probably erroneously spelled Mi skyid 'phrul bzo khang, in Nornang's account as reproduced in Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 64 (and Gyaltse Namgyal Wangdue, *Political and Military History*, 46) and thus falsely translated as "Joyful Machine Factory" in the English version of the book.

tion rifle),⁸⁰ along with small cannon on wheels, cannon balls, gunpowder, long and short swords and lances.⁸¹ The weapons factories known as Métok kyitsel and the one located in either Lugu or Yamön are most probably one and the same, as both places are given the identical location in the southwestern part of Lhasa centre (formed by the Jokhang), just south of the Turquoise Bridge (*gyu thog zam pa*). Moreover, British sources dating from this entire period consistently refer to only one arsenal in Lhasa.⁸²

The set of photos of the “Lhasa Arsenal” dated 1920-21 and kept in the Charles Bell (1870-1945) collection ([figs 6-7-8] in this paper), has visibly been taken from that very area of Lhasa.⁸³ In 1920, this arms factory apparently merged with another factory known as Norbu tsokyil (Nor bu mtsho dkyil or Nor dkyil) which had been established previously in Yatung (Dromo) and was specialised in the production of copper and silver plates and coins.⁸⁴ Last but not least, one photograph dated 1924 testifies to the fact that the “Lhasa arsenal” was still associated with the Yamön area at that time.⁸⁵

80 Interestingly, it appears that Tibetans (though not necessarily the Tibetan army) were using bolt-action rifles, equipped with traditional prong-rests (see the 1926 photograph taken by Joseph Rock in Rock, *Lamas, Princes, and Brigands*, fig. 4.9, also reproduced in Tashi Tsering Josayma in this issue). The other men in this photo appear to be carrying traditional matchlock muskets. I am grateful towards Donald La Rocca for having pointed that particular type of weapon to me.

81 Bshad sgra, Chab tshom, Sreg shing, “Ya mon ‘phrul bzo khang”, 70.

82 For instance, we read in British archives that in 1916, “the Tibetans still continue to manufacture cartridges, and cannon balls, at the Lhasa Arsenal. [...] A Tibetan blacksmith named ‘Tsering Dorje’ has manufactured a cannon, and is now receiving a salary of Rs. 80 per month from the Tibetan Government”, cf. *Yatung Trade Agency News Report no. 3 of 1916, September 1916* (NAI, Sec. E. April 1917, 77-157).

83 This is particularly apparent when one looks at the photograph (not reproduced here but available online) entitled “View of the Potala Taken from the Arsenal’s Roof” (*Tibet Album*, PRM 1998.285.78, Charles Bell Collection).

84 Bshad sgra, Chab tshom, Sreg shing, “Ya mon ‘phrul bzo khang”, 70. See also Shakabpa, *One Hundred Thousand Moons*, 804; Zhwa sgab pa, *Bod kyi srid don rgyal rabs*, vol. 2, 271. The date of the merging seems unclear as the Norbu Tsokyil Mint seems to have still existed in 1924 when Tsarong visited it (Tsarong, *In the Service of His Country*, 74). It must be noted here that one part of Taring’s account has not been considered in this regard and must be regarded as erroneous following comparison with all other sources. Indeed, Taring states that the Drip factory moved to the Lhasa Yamön even before the Younghusband expedition, with its name changed to Nor dkyil ‘phrul bzo khang, and was then closed in 1904; Rgyal rtse rnam rgyal dbang ‘dus, *Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 33 (and Gyaltse Namgyal Wangdue, *Political and Military History*, 27). Except for the Drip factory’s move to Yamön, the rest is very unlikely, first in terms of chronology (this arsenal is not found on any maps of Lhasa drawn during the ‘Tibet mission’) and second regarding the name (in the two above-mentioned sources Nor dkyil ‘phrul bzo khang corresponds to the factory located in Yatung, which had nothing to do with weapons manufacture).

85 See the caption of a photo not reproduced here taken by Frederick Marshman Bailey “Yamon area, Yamen Arsenal [Lhasa]. Making rifles” (British Library, Bailey collection, Photo 1083/76(26): 26 Jul. 1924).

In any case, the scale of production in this new arsenal remained insufficient. Charles Bell underlines the shortage of firearms in Tibet at that time (around 1914-18) and adds:

Now that Britain was occupied in the world war, the Chinese were preparing to attack Tibet more vigorously. Accordingly, the little Tibetan arsenal in Lhasa had to strain every nerve to make as many cartridges as it could. It was in the charge of a capable priest [either the above-mentioned *mkhan drung ta'a bla ma* who would have remained in charge since 1914 or another monk official (*rste drung*)], and though of course, the cartridges were of mediocre quality, still they did the best they could.⁸⁶

The absence of electricity in Lhasa proved a significant handicap. At a time when Tibet had started to rely mainly on British India for support in the modernisation of the country and its army, the Tibetan government had sent four boys to England in 1914 to receive education and training in several technical fields, including electrical engineering.⁸⁷ In July 1918, five Tibetan mechanics were also sent to British India to learn how to produce weapons. However, after they visited an arsenal in Calcutta which was powered by electricity, it was decided that the training was pointless since there was no electricity in Lhasa and the British thought that they also lacked the technical skills to benefit from such a training; they were recalled to Tibet.⁸⁸ At this time the situation was particularly critical because the cartridges (*rdzas mdel*) produced by the Tibetans were damaging the newly imported British rifles, as we will see in the second part.

Therefore, the construction of the first hydroelectric power station in Tibet, in the Dodé valley (Dog bde/sde) north of Lhasa and east of Sera (Se ra) monastery, which began in 1924 under the supervision of the aristocrat official Ringang/Jangngö Rindzin Dorjé (Rin sgang/

86 Bell, *Portrait of a Dalai Lama*, 210-1. A photo taken at that time also documents the dissimilar size of the bore in the cannon produced in this arsenal: "Small cannon manufactured at Lhasa Arsenal. The bores are not uniform" (photo 1112/2(40), by C.A. Bell, 1920-21, British Library). Later in the same book, Bell is quite critical of the locally produced firearms, without precisely noting the period he is writing about (though the details he gives about its location seem to concern the old Drip factory rather than the later Me skyid / Ya smon / Klu sbug arsenal): "[Tibetans'] rifles and ammunition were poor, having been mostly manufactured in primitive workshops a few miles outside Lhasa, where an Indian was in charge"; Bell, *Portrait of a Dalai Lama*, 249.

87 On this episode, see Goldstein, *A History of Modern Tibet*, 158-9; Bla phyag mkhan chung thub bstan bstan pa, "Grwa bzhi glog 'phrul khang", 98.

88 *Abandonment of the Scheme for the Training in India of Tibetan Mechanics in the Manufacture of Arms* (NAI, Sec. E, July 1918, 1 to 6).



Figure 6 “The Arsenal in Lhasa”. Photograph by Rabden Lepcha?, 1920-01, Coll. Sir Charles Bell, PRM 1998.286.46, probably being the Métok kyitsel arsenal located in the Lugu or Yamön area

Figure 7 “Blacksmiths at Lhasa Arsenal”. Photograph by Rabden Lepcha?, 1920-01, Coll. Sir Charles Bell, PRM 1998.285.186.1



Figure 8 “Cannon at Lhasa Arsenal”. Photograph by Rabden Lepcha?, 1920-21, Coll. Sir Charles Bell, PRM 1998.286.48

Byang ngos rig 'dzin rdo rje),⁸⁹ one of the four young men trained in England, was a much-awaited improvement not only for the progressive electrification of Lhasa but also for local industry, including weaponry. One Tibetan archive document⁹⁰ seems to indicate that, for a while at least, ammunition might have been manufactured directly in Dodé.⁹¹ Just a few years later, the most significant and long-lasting improvement regarding Tibetan weapons manufacturing would be based on the energy generated by the Dodé power plant.

⁸⁹ Bshad sgra, Chab tshom, Sreg shing, “Glog 'don khang”, 72; see also Goldstein, *A History of Modern Tibet*, 152.

⁹⁰ A facsimile of the document is published as document 157, *Qingdai Xizang difang dang'an wenxian xuanbian*, Xizang Zizhiqiu dang'an guanbian. Beijing: Zhongguo Zangque chubanshe, 2017, vol. 1, 158 and vol. 3, 720. I have included a transliteration as Appendix 3 of this paper. In this document, a Tibetan named Tamdrin, who was usually selling ammunition at a place named 'Ong stod zhing khar, reports an incident in which he had apparently accidentally fired his rifle. He had bought the cartridges (*U shang mde'u*) from a “monk from Drepung or Sera” (*ser 'bras kyi grwa rigs 'dra ba zhig*). He describes these “Tibetan made cartridges” (*bod bzos mde'u*) as having been manufactured by a worker at the Dodé factory (*rdo sde'i* [*sic i.e. dog bde/sde'i*] *bzo pa*). Interestingly we also hear about the current market price of ammunition (nine cartridges were sold to Tamdrin for 7.5 zho).

⁹¹ If it indeed was, it must have been only for a short while as the descriptions of the various offices of the Tibetan government do not mention it; Bshad sgra, Chab tshom, Sreg shing, “De snga'i bod sa gnas srid gzhung gi srid 'dzin sgrig gzhi”, 1-101.

3.4 The First Hydroelectric Powered Weapons Factory in Trapchi (1931-50)

The last major effort towards improving and upscaling firearms manufacture during the Thirteenth Dalai Lama's rule was the creation of the hydroelectric-powered Trapchi factory (Grwa bzhi glog 'phrul khang).⁹² Begun in 1927 and inaugurated in 1931, the complex included not only the weapons factory, but also the mint (*gser Tam las khung*), the paper money printing office (*lor khang*) and the barracks of a new elite regiment (*grong drag dmag sgar*) of the Tibetan army.⁹³ The complex was placed under the joint responsibility of Künpela (Kun 'phel lags, 1905-1963) and Tsarong (Tsha rong zla bzang dgra 'dul, 1888-1959). Its history and organisation are described in detail by Lachak Khenchung Tupten Tenpa (Bla phyag mkhan chung thub bstan bstan pa), who was appointed as an ordinary monk official in Trapchi in 1946.⁹⁴ Previously existing factories including the former weapons factory *ya mon 'phrul bzo khang* - relocated into the new compound.⁹⁵ Thus, the new weapons factory with electrically powered machines was clearly considered a continuation of the Métok kyitsel weapons factory located on the former site of Yamön/Lu-bug - implying that activities there stopped.⁹⁶ A new armoury was

92 Bshad sgra, Chab tshom, Sreg shing, "Grwa bzhi glog phrul las khungs", 71. On the creation of Grwa bzhi glog 'phrul las khungs, see also Shakabpa, *One Hundred Thousand Moons*, 821 and Zhwa sgab pa, *Bod kyi srid don rgyal rabs*, vol. 2, 296; see also Goldstein's pages on the rise of Künpela until 1933, which is directly related to Trapchi's history (Goldstein, *A History of Modern Tibet*, 151-5); Tsarong, *In the Service of His Country*, 84 and the article by Wolfgang Bertsch (Bertsch, "Tibetische Münzstätte Trabshi Leukung").

93 Bla phyag mkhan chung thub bstan bstan pa, "Grwa bzhi glog 'phrul khang", 98. Trapchi was already the place of a functioning arsenal in 1927 according to one British record quoted by Goldstein (*A History of Modern Tibet*, 123 fn. 66).

94 Bla phyag mkhan chung thub bstan bstan pa, "Grwa bzhi glog 'phrul khang", 115. See his account also for the names of the successive officials in charge of Trapchi.

95 According to Bshad sgra, Chab tshom, Sreg shing, "Grwa bzhi glog phrul las khungs", 72.

96 In Nornang's account, the former "Métok kyitsel" arms factory is said to have been transferred to the new Trapchi arms factory upon its foundation, which supports the idea that the "Yamön factory" presented by Bshad sgra, Chab tshom, Sreg shing (see footnote above) as Trapchi's precursor and the Métok kyitsel factory were one and the same; see Nornang's account as reproduced in Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 64-5. NB: The English translation of this book has the former Métok kyitsel factory erroneously located in Drip "the Miki Factory at Drip" (Gyaltshe Namgyal Wangdue, *Political and Military History*, 47), but this is an error as there is no mention of Drip in the Tibetan version of the book in this particular passage. On Trapchi being the continuation of the former weapons factory, see also the description by Wolfgang Bertsch, and its assessment that the Trapchi arsenal dates back to 1914: "Trabshi Leukung [...] wurde ursprünglich unter Mitwirkung des indischen Technikers Ismael im Jahre 1914 als Fabrik für die Produktion von Waffen und Munition für die tibetische Armee eingerichtet" (Bertsch, "Tibetische Münzstätte Trabshi Leukung"). Since there is absolutely no doubt about the fact that the location of Trap-

also founded on the compound to store the new machine guns acquired from the British.⁹⁷ The main innovation at that time consisted in making copies of the British Short Magazine Lee-Enfield (*dbyin mda' kha dum / kha thung*, lit. 'British short barrel long gun') that had been imported from India in 1922, as will be discussed in part 4 of this paper, as well as ammunition,⁹⁸ new artillery and shells.⁹⁹ However, Federica Venturi has underlined how unsuccessful this new attempt at producing Lee-Enfield rifles and their ammunition was: "The bullets made in Tibet did not work well and actually turned themselves 90° during their trajectory, thus hitting flat on their target"; the British gunsmiths consulted in India to evaluate the reasons for this failure apparently listed twenty-seven different manufacturing mistakes in the gun and advised to halt gun production altogether.¹⁰⁰ The ammunition manufactured at the arsenal for new guns caused too many accidents¹⁰¹ to be used and Tibetans remained heavily dependent on ammunition purchased from the British.

Thus, despite all efforts made by the Tibetan government from 1895 up to 1950 to improve the quality and increase the quantity of their local firearms production, including the creation of at least three successive weapons factories (see [tab. 1]), the results proved insufficient in the end. While the Tibetan government never stopped producing guns and ammunition in order to ensure a minimum level of self-sufficiency, as soon as diplomatic relations with British India allowed it, so from 1914 onwards, the Tibetan government increasingly relied on imports to equip its army.

chi was chosen for the weapons factory only in 1927 and opened in 1931; Bertsch's assessment, if not inaccurate, can be understood only if one considers the Trapchi weapons factory as the continuation of the one opened in 1914 in Yamon/Lubug with the help of Indian gunsmiths, with the welcome additional information of the personal name of the gunnery specialist "Ismael".

97 Bla phyag mkhan chung thub bstan bstan pa, "Grwa bzhi glog 'phrul khang", 114. It became the main government armoury, with the Dorjéling armoury located in the Zhol area below the Potala being integrated into the new Trapchi armoury; Tsarong, *In the Service of His Country*, 84.

98 Also according to Bshad sgra, Chab tshom, Sreg shing, "Grwa bzhi glog phrul las khungs", 72.

99 Nornang's account as reproduced in Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmad don lo rgyus*, vol. 1, 65 (and Gyaltse Namgyal Wangdue, *Political and Military History*, 47).

100 Venturi, "The Thirteenth Dalai Lama on Warfare", 489.

101 Goldstein, *A History of Modern Tibet*, 281.

Table 1 Gunpowder and weapons factories in and around Lhasa (1896-1950)

Name of arms and ammunition factories	Location	Date
Sman chu rdzas khang	Northeast of the Chakpori	extant c. 1915
Grib bzo grwa = Bde skyid gling firearm factory?	Southeastern bank of the Kyichu near Grib monastery	started around 1892-5, still extant c. 1905
Me tog skyid tshal (Me skyid) 'phrul bzo khang?	Lhasa Ya smon / Klu sbug area (southwestern part of Lhasa, just south of the Yutok bridge)	started in 1914/1915, extant in 1924
Grwa bzhi glog 'phrul khang	Grwa bzhi (north of Lhasa)	started c. 1931

4 Fortunes and Misfortunes of Firearms Imports and Tibetan Diplomacy

From the late nineteenth century on, historical sources bear witness to the extent of the Tibetan government's efforts to import weapons and thereby compensate for the insufficient quality of their local firearms production. The import of weapons always raises a number of issues. The main two that shall be examined here are, on the one hand, the intrinsic dependency on good diplomatic relationships with the exporting countries - which cannot be underestimated when one considers that Tibet experienced probably its most intense period of isolation during the second half of the nineteenth century - and on the other hand, the challenge that new imported weapons posed in regard to their use, namely the acquisition of continually advancing technical skills and the level of general education that the transfer of such specialised knowledge required.

4.1 Imports from a Variety of Countries Before 1914

Before 1914, foreign-made firearms and ammunition entered Tibet initially only in very modest quantities, having been either seized in battle, received as diplomatic gifts,¹⁰² or purchased. They were im-

¹⁰² These gifts are documented in many forms. For instance, on the British side, on 20 March 1905, the first British Trade Agent at Gyantse, W.F. O'Connor, received a note of thanks from the Prime Minister of the Panchen Lama *bla brang* in Shigatse and the Panchen Lama's uncle for the two guns he had offered them, cf. *Diary Kept by W.F. O'Connor, British Trade Agent, Gyantse, for the Week Ending the 26th March 1905, to the Secretary to the Government of India in the Foreign Department* (IOR/L/P&S/7/178/P102). One undated Tibetan archive document, possibly related to the same gift exchange or to a later gift, and kept in the collections of the Institut d'Études tibétaines at the Collège de France in Paris (IET Ms. 3), is a letter addressed by the Ninth Panchen Lama (1883-1937) to "F.W. [sic] Colonel O'Connor Sahib CIE" (*e pha Dab lu ka nel e ko nor sa heb si a'i*), to

ported from various countries, mainly from Russia, Mongolia, China, Japan and British India.¹⁰³ Russian weapons were imported into Tibet, a fact presented as an additional reason for the British to launch the Younghusband expedition in 1903, but never *en masse*. To give examples of the quantities involved: prior to this military expedition, Kawaguchi reported the arrival of a camel-caravan bringing small American-made firearms and ammunition from Russia in spring 1902;¹⁰⁴ during the expedition, at the famous battlefield of Guru (Sgu ru) the British seized only two breech-loaders of Russian make used by Tibetan troops;¹⁰⁵ Ottley mentions only a “few Russian rifles” taken from the Tibetans;¹⁰⁶ shortly thereafter, in 1905, the British reported that a Mongolian had brought around thirty rifles to the Tibetan government, which were handed over to Séchung (Sras chung) Minister;¹⁰⁷ and in 1907, the Thirteenth Dalai Lama, then in exile in Mongolia, sent 200 Russian rifles to Lhasa, which were tried

“thank him for the firearm and the cartridges that were sent and received in good state” (*me mda’ mde’u rang’ grig bcas nyams med gnang’ byor byung ba thugs rje che*). I am grateful to Françoise Wang-Toutain for having pointed out this document to me. More generally on gifts in the context of Anglo-Tibetan diplomatic exchange, and the fact that they always included weapons, see Emma Martin, oral communication “Material Histories of Diplomacy. Tracing Tibetan Gift Giving in the Imperial Archive”, 6 June 2019, SFEMT, Paris; Martin, *Fit for a King*, 91. On the Japanese side of gift exchanges, Shakabpa documents one gift of “several modern guns” (*phrul mda’ thon gsar*) presented in 1908 by the Japanese ambassador in Beijing, Lieutenant General Yasumasa Fukushima, to the Thirteenth Dalai Lama, cf. Shakabpa, *One Hundred Thousand Moons*, 694, 710 fn. 34; Zhwa sgab pa, *Bod kyi srid don rgyal rabs*, vol. 2, 146. Note that the use of the term “machine gun” for the Tibetan *‘phrul mda’* in the English translation of Shakabpa’s work is possibly an anachronism (in this case Shakabpa certainly meant only modern rifles).

103 There is one visual testimony (not reproduced here) of a gun made in Czechoslovakia that found its way to Tibet in 1938 and was called by Tibetans the “Parmerly”, cf. photograph “George Tsarong shooting a gun during return journey to Lhasa from Darjeeling school” (Photo F2-69, Tsarong private collection). While the weapons of the Tibetan government and its army were mostly of British origin, aristocrats in Lhasa had mostly weapons of Chinese and Russian origin, Anonymous interview, Lhasa, 6 August 2014.

104 Kawaguchi, *Three Years in Tibet*, 505: “I had the opportunity to inspect one of the guns sent by Russia. It was apparently one of modern pattern, but it did not impress me as possessing any long range nor seem to be quite fit for active service. The stock bore an inscription attesting that it was made in the United States of America. The Tibetans being ignorant of Roman letters and English firmly believed that all the weapons were made in Russia. It seems that about one-half of the load of the five hundred camels consisted of small arms and ammunition”. This explanation by Kawaguchi might provide a reason why the British seized so few firearms “of Russian make” in Tibet during the Younghusband expedition. However, British sources do not mention the seizing of any American firearms either.

105 See Shakabpa, *One Hundred Thousand Moons*, 682.

106 Ottley, *With Mounted Infantry in Tibet*, 72.

107 *Diary of Captain W.F. O’Connor, CIE, British Trade Agent at Gyantse, for the Week Ending the 6th August 1905* (IOR/L/P&S/7/180/P1465).

out in front of the cabinet ministers Yutok (G.yu thog) and Séchung.¹⁰⁸ Candler has a quite informative passage on the origins of the fire-arms seized from Tibetan soldiers in 1904, which succinctly sums up the situation regarding both local production and imports, especially from Russia:

This last encounter with the Tibetans is especially interesting, as they were the best-armed body of men we had met. The weapons we captured included a Winchester rifle, several Lhasa-made Martinis, a bolt rifle of an old Austrian pattern, an English-made muzzle-loading rifle, a 12-bore breech-loading shot-gun, some Eley's ammunition, and an English gun-case. The reports of Russian arms found in Tibet have been very much exaggerated. 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. Also, it must be remembered that the weapons locally made in Lhasa were of British pattern, and manufactured by experts decoyed from a British factory. Had these men been Russian subjects, we should have regarded their presence in Lhasa as an unquestionable proof of Muscovite assistance. Jealousy and suspicion make nations willfully blind. Russia fully believes that we are giving underhand assistance to the Japanese, and many Englishmen, who are unbiased in other questions, are ready to believe, without the slightest proof, that Russia has been supplying Tibet with arms and generals. We had been informed that large quantities of Russian rifles had been introduced into the country, and it was rumoured that the Tibetans were reserving these for the defence of Lhasa itself. But it is hardly credible that they should have sent levies against us armed with their obsolete matchlocks when they were well supplied with weapons of a modern pattern. Russian intrigue was active in Lhasa, but it had not gone so far as open armament.¹⁰⁹

Chinese cannons and rifles started to be imported in larger quantities just before the fall of the Manchu dynasty in 1911: for instance, on 28 February 1908, British intelligence reports the arrival in Lhasa of 500 rifles and carbines¹¹⁰ from China; another consignment arrived on 17 March 1908, followed on 26 June 1908 by "7,000 rifles

108 *Gyantse Dairy of Lieut. Bailey, Officiating British Trade Agent at Gyantse, for the Week Ending the 5th October 1907* (IOR/L/P&S/7/207/1965).

109 Candler, *The Unveiling of Lhasa*, 221-2.

110 The main difference between a rifle and a carbine is in the length of the barrel; a carbine's is shorter.

and large quantities of ammunition".¹¹¹

In August 1912, according to Shakabpa, the Tibetan government seized from the Qing garrison in Lhasa - before the latter was sent back to China - 840 magazine rifles (*mdel lcags shubs can gyi me mda' ring po*, lit. 'a long rifle possessing a metal magazine for bullets') [fig. 9],¹¹² 160 *rkang gsum can gyi me mda'* (lit. 'three feet firearm', which could designate the Tibetan matchlock or 'prong gun',¹¹³ or rather a 'firearm with a tripod',¹¹⁴ which would then designate a modern type of firearm), 90 *jingals* ('jin 'gal zhes pa'i med mda') and, last, four *me mda' sbag sbag*.¹¹⁵ These would certainly be the first machine guns mentioned in Tibet. However, their exact nature is not clarified by the Tibetan terminology in Shakabpa's work, nor in Derek Maher's English translation.¹¹⁶ Shakabpa further writes that according to a copy of the original agreement, all "Chinese machine guns" (*rgya mi'i sbag sbag*),¹¹⁷ Lewis guns (*mi shin 'gan*) *lu si 'gan*),¹¹⁸ and all battle equipment (*g.yul mkho'i yo chas*) were to be entrusted to the custody of the Tibetan government.¹¹⁹ Last, Shakabpa again recounts,

111 *Importation of Arms into Lhasa, 1908* (NAI, Extl, May 1908, 108 to 110, Part B); *Extract from a Letter from the Resident in Nepal, no. 92, Dated the 10th July 1908* (NAI, Sec. E, September 1908, 113-34, 123).

112 The seizing of these firearms is documented by one piece of photographic evidence.

113 This is how Derek Maher translates the phrase, cf. Shakabpa, *One Hundred Thousand Moons*, 745. If this hypothesis is followed, it would document the continued use of matchlocks by Qing troops in Tibet up to 1912, along with more modern firearms.

114 The phrase *rkang gsum can gyi me mda'* is not documented elsewhere in Tibetan sources as meaning a matchlock musket with its two prongs and one would rather think of more modern types of firearms that are indeed mounted on a tripod. For instance, there were certain types of Maxim guns existing by that time that were mounted on a tripod. However, the high number of *rkang gsum can gyi me mda'* seized seems to speak in favour of a small arm rather than an artillery piece.

115 Zhwa sgab pa, *Bod kyi srid don rgyal rabs*, vol. 2, 212.

116 In the English version (Shakabpa, *One Hundred Thousand Moons*, 745-6), the translator Derek Maher interprets this last category of weapons (*me mda' sbag sbag*) as meaning Maxim guns, which seems doubtful because later sources do not mention the Tibetan government being in possession of these cannons. In addition, the Tibetan word usually designates a lighter type of machine guns.

117 Derek Maher interprets the two occurrences of the word *sbag sbag* as meaning precisely "Maxim gun" in his English translation (Shakabpa, *One Hundred Thousand Moons*, 745-6) and includes again "Maxim gun" in a last passage where only *me shin 'gan* is used in the original Tibetan. However, both the onomatopoeic word *sbag sbag* and the phonetic rendering *me shin 'gan* usually means only the generic category 'machine gun'.

118 The Lewis gun is a First World War-era light machine gun of American design that was perfected and mass-produced in the United Kingdom, and widely used by troops of the British Empire during the First World War. Weighing only around 12 kg, half as much as the Vickers that were later imported to Tibet, they were the first weapons capable of sustaining continuous fire to reach Tibet. Lewis guns were later imported to Tibet from British India (see [fig. 12]).

119 Zhwa sgab pa, *Bod kyi srid don rgyal rabs*, vol. 2, 213. I have proposed my own translations as Derek Maher's departs too much from the original Tibetan; in addition



Figure 9 “Chinese and arms captured by Tibetans, 1910-11”. Henry Martin, Henry Martin Collection, The Pitt Rivers Museum, UK, PRM 1998-293-133

regarding the same episode, that the Tibetan government stored the weapons seized from the Chinese including “rifles (*me mda'*), machine guns (*me shin 'gan*) and Lewis guns (*lu se 'gan*)”.¹²⁰ What happened to these first generation machine guns is not entirely clear, as they are not quoted in other sources after 1912¹²¹ and the import, much later, of Lewis guns from British India would then be presented as an additional innovation. In any case, after the end of the Chinese protectorate in Tibet, it was thanks to the new rapprochement with British India that a new chapter in firearms import began.

4.2 The Benefits and Limits of Tibetan Dependency on British India for Firearms Imports (1914-47)

It was indeed from the Raj that the Tibetan government imported weapons in the greatest quantities and over the longest period of time (see my compilation of data from Goldstein and other sources in [tab. 2]). However, these imports were irregular and consistently deficient in view of the requests placed by the Tibetan government,

to his interpretation of Maxim guns, he omits twice to mention the “Lewis guns” in his translation (Shakabpa, *One Hundred Thousand Moons*, 746).

¹²⁰ Zhwa sgab pa, *Bod kyi srid don rgyal rabs*, vol. 2, 214.

¹²¹ Machine guns and Lewis guns are not explicitly part of the 1916 list of modern weapons kept in the Dorjéling armoury, quoted in Venturi, “The Thirteenth Dalai Lama on Warfare”.

as Goldstein has clearly shown.¹²² Earlier sources reveal that just after the 1903-04 Younghusband expedition, the British had repeatedly refused to sell weapons and ammunition to the Tibetan government for its army, and that, besides the above-mentioned diplomatic gifts of weapons, only a few religious leaders and Tibetan officials managed to buy ammunition from the British for their private use.¹²³

Table 2 Imports from the British Government of India and India into Tibet from 1914 to 1950¹²⁴

1914	1921-33	1934-41	1943-50
5,000 Lee Metford rifles (.303)	10,000 Short Magazine Lee-Enfield rifles (.303) 20 Lewis guns 10 mountain guns (ten-pounders) 20 machine guns	10 Lewis guns 4 mountain guns 5 Vickers machine guns 3 practice machine guns	1,260 rifles (.303) 144 Bren guns (plus 150 in 1950?) 168 Sten guns 42 Very pistols (flare guns) Ordnance BL 2.75-inch mountain gun Howitzer (Tib. <i>ha'o dzar</i>) 3-inch and 2-inch mortars

Tibetan autobiographies and research in other British archives shed further light on the chronology of imports and use of the various firearms

¹²² Goldstein, *A History of Modern Tibet*. For a summary of the various stages in importing firearms from the British, see [tab. 2].

¹²³ *Arms* (NAI, Extl, January 1908, 96 to 100, Part B).

¹²⁴ Based on data collected in Goldstein, *A History of Modern Tibet*, 120, 402, 619, 634, 662 as well as in other English archives and in Tibetan sources for the last three artillery piece types. The Ordnance BL 2.75-inch mountain gun is referred to in British archives as being used for training in Gyantse and in Lhasa in 1943 (cf. *Lhasa Letter for the Week Ending 13th June 1943 from Major Sheriff, Additional Assistant, Political Officer of Sikkim, Officer in Charge, British Mission, Lhasa*, IOR L/P&S/12/4201), as we will see later, and thus was most probably imported from British India. The purchase of a Howitzer is referred to in Nornang's account as reproduced in Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 64 (and Gyaltshe Namgyal Wangdue, *Political and Military History*, 46); its use in Lhasa in 1947 is reported in Goldstein, *A History of Modern Tibet*, 498. The fact that the Government of India agreed in 1950 to import 3-inch and 2-inch mortars is referred to in Goldstein, *A History of Modern Tibet*, 662, and their actual use in Tibet is referred to in Nornang's account as reproduced in Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 64 (and Gyaltshe Namgyal Wangdue, *Political and Military History*, 46).



Figure 10 Example of a British Lee-Enfield Rifle Mk II, .303 caliber (1895). From the collections of the Armémuseum (Swedish Army Museum), Stockholm, Sweden (CC BY 4.0)

as well as on the Tibetan terminology. As stated, the weapons imports from British India started only in 1914, after the Simla Conference, with the initial sale of 5,000 Lee-Enfield rifles¹²⁵ (see [fig. 10]) taking .303 cartridges, of which 500,000 were also sold.¹²⁶ These rifles were called in Tibetan *dbyin mda' kha ring*,¹²⁷ lit. 'British long barrel long gun'.¹²⁸

125 The Lee-Enfield rifle was a bolt-action British army service rifle produced by the Royal Small Arms Factory of Enfield, and named after the two engineers who designed it: James Paris Lee (responsible for the rear-locking bolt system and detachable magazine) and William Ellis Enfield (for the seven-groove rifled barrel). Replacing the Martini-Henry rifle in 1888, it was phased out by the Lee-Enfield rifle, which was of nearly identical design but took smokeless powder cartridges, beginning already in 1895. See Fowler et al., *The Illustrated World Encyclopedia of Guns*, 284. The Lee-Enfield rifle was still in British use during the Second Boer War in 1899, and it was also the main firearm used by the Anglo-Indian soldiers of the 'Tibet Mission Force' in 1903-04. It had already been almost entirely replaced in the British army by 1914, when 5,000 such rifles were sold to the Tibetan government.

126 Goldstein, *A History of Modern Tibet*, 77; Jamyang Norbu, "Centennial of a Historic Tibetan Victory". Though Goldstein indicates precisely that these first weapons were sold to the Tibetan government, Shakabpa presents it as a "good-faith gift from the British government" (Shakabpa, *One Hundred Thousand Moons*, 775, emphasis added) / *legs skyes phyag rtags su 'bul* (Zhwa sgab pa, *Bod kyi srid don rgyal rabs*, vol. 2, 243).

127 Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmad don lo rgyus*, vol. 1, 33 (and Gyaltshe Namgyal Wangdue, *Political and Military History*, 27). Please note that the English translation places the sale in the same paragraph immediately following a sentence on the 1903-04 Younghusband expedition; however, in the Tibetan version, the sale of 5,000 British rifles to the Tibetans starts a new paragraph and is introduced by the words "later on" (*rjes la*).

128 The qualifier "British" was all the more needed since the term *me mda' ka [sic] ring* had already been in use in Tibetan for a long time to designate the old Tibetan matchlock. See for instance its occurrence in the biography of the Sixth Dalai Lama

Thanks to these new imports, and the small local production, it can be safely stated that the regular small arm of the permanent troops of the Ganden Phodrang army became, at some point after 1914, entirely composed of modern rifles, and not anymore in a portion, as it was the case in 1903-04.¹²⁹

At the time, the Tibetans had no modern cannon, mountain guns or machine guns (except possibly for the few heavy Maxim guns mentioned above) and asked the British to sell them these items as well; the British refused, citing their own current firearms shortage during the First World War.¹³⁰ After the war was over, in 1919, the British refused again, this time because they did not wish to make Tibet too strong vis-à-vis China and support their move towards complete independence.¹³¹ Nonetheless, the Tibetan troops' victory over Chinese troops in Kham and the signing of the Rongbatsa (Rong ba rtse) Truce in 1918 was largely attributed to these first 5,000 new modern rifles supplied by the British to the Tibetan government in 1914.¹³²

It is only from 1921 onwards, at the height of Anglo-Tibetan diplomatic relations, and because the British Government of India feared that Tibet would otherwise turn to Japan to import weapons,¹³³ that the British finally agreed to sell another consignment of firearms to Tibet, this time comprising 10,000 Short Magazine Lee-Enfield¹³⁴ (*dbyin mda' kha thung / dbyin mda' kha dum / dbyin mda' kha 'dum*, lit. 'British short barrel long gun',¹³⁵ see [fig. 11]), as well as the first

for the year 1693, Sde srid sangs rgyas rgya mtsho, *Sku phreng drug pa'i rnam thar rnam thar*, 206.

129 If the use of the old Tibetan matchlock (*bod mda'*) in the Tibetan military thus came to an end, it remained common for the hunting and private usage for decades, especially in Tibetan nomadic areas. The nomadic pastoralists in Phala (Pha lha) on the Changtang area still used it for hunting in the eighties. Cf. Goldstein, *Nomads of Western Tibet*, 124.

130 Goldstein, *A History of Modern Tibet*, 78.

131 Goldstein, *A History of Modern Tibet*, 78.

132 Goldstein, *A History of Modern Tibet*, 83.

133 Facing the constant British refusal to sell them weapons, in 1921 the Tibetan Government had indeed arranged to import Japanese rifles and machine guns from Mongolia (Japan was helping Mongolia against the Bolsheviks), see Goldstein, *A History of Modern Tibet*, 252, 349-50.

134 The Short Magazine Lee-Enfield is a bolt-action, magazine-fed repeating rifle that replaced the Lee-Enfield, becoming the standard rifle used by the military forces of the British Empire and Commonwealth from 1895 to 1957. Its name derives from the bolt-action designed by James Paris Lee and its place of manufacture, the Royal Small Arms Factory in Enfield.

135 From here, all the different orthographic variations of Tibetan names and transcriptions found in the autobiographies listed in the bibliography are given after the English name of each firearm.



Figure 11 Example of a British short magazine Lee-Enfield Mk I (1903), .303 caliber. From the collections of the Armémuseum (Swedish Army Museum), Stockholm, Sweden (CC BY 4.0)

Figure 12 Soldiers shooting a recently imported Lewis gun during training by the British at Gyantse, under the supervision of four standing Tibetan officers, left to right Changchen gung, Doring téji dapôn, Tsogo rupôn, and Rong Démôn rupôn. Photograph by H.R.C. Meade, 1922, Royal Geographical Society, PR/073238



Figure 13 Demonstration of a Vickers gun in Lhasa: "Soldiers demonstrating military drill at a review of troops held in September 1936 at which Brigadier Philip Neame inspected the Tibetan Army". Photograph by Brigadier Nepean, 1936. © The Trustees of the British Museum, Asset number 577936001, CC BY-NC-SA 4.0

Figure 14 Demonstration of a mountain gun in Lhasa: "Military review at Trapchi". Photograph by Frederick Spencer Chapman, 7 September 1936, PRM 1998.131.506. The *Tibet Album* contains a description of this image which mentions that Chapman's handwritten caption for this photograph has "V. [vickers] gun going off". However, the image does not show a Vickers gun, but a mountain gun

Lewis guns (*lu'u si ghan / lu'u sin ghan / lu yi si ghan*, see [fig. 12]),¹³⁶ mountain guns (*me sgyogs*, [fig. 14])¹³⁷ and ammunition.¹³⁸ British archives reveal that the aristocrat Surkhang (Zur khang *sras*) was sent to Kalimpong in 1922 to buy them and bring them back to Lhasa.¹³⁹

The internal political crisis in Tibet in 1924 (which caused the Thirteenth Dalai Lama to temporarily halt military modernisation) and the crisis in diplomatic relations with the British initially slowed down¹⁴⁰ and then entirely stopped British imports and training for a few years until these activities resumed in 1931. The year 1932 saw the very significant purchase of the first machine guns¹⁴¹ (*me shin gun / mi shin ghan / meg sin ghan / sbag sbag*) to Tibet. While arms and ammunition imports continued in 1932¹⁴² and 1933,¹⁴³ they again almost stopped after the Thirteenth Dalai Lama's death in 1933 and during the Réting (Rwa sgreng) regency (1934-41): only eight machine guns, i.e. five Vickers (see [fig. 13]) and three drill practice guns, some of them never unpacked, ten Lewis guns and four mountain guns were purchased.¹⁴⁴

136 If we except those seized from the Chinese garrison in 1912 and of which nothing is heard in the later accounts on the Tibetan army. For a study of the episode shown on fig. 12, see Travers, "L'entraînement de l'armée tibétaine".

137 These were most probably the ten-pounder mountain gun (*kran phon po kran / me sgyogs kran pa 'on krar*), which was first demonstrated to the Lhasa population in 1924 (Tsarong, *In the Service of His Country*, 73) and was still in use in the Tibetan army in the thirties and forties, see § 4.3 in this paper on the training of soldiers.

138 Goldstein, *A History of Modern Tibet*, 120.

139 *Annual Report on the British Trade Agency at Yatung for the year 1921-1922 (for the Year Ending the 31st March 1922) dated the 18th April 1922, Gangtok, from the Political Officer in Sikkim (Major F.M. Bailey) to the Government of India in the Foreign and Political Department, Simla* (IOR/L/P&S/10/218/P2134).

140 The conveyance of munitions to Lhasa by the assistant to the Tibetan Trade Agent in Yatung is still reported in 1927, cf. *Annual Report on the BTA, Yatung, Tibet for the Year Ending the 31st March 1928* (IOR/L/P&S/12/4166/P2445).

141 A machine gun is a fully automatic (i.e. it fires as long as the trigger is held, contrary to semi-automatic firearms which require one trigger pull per round fired) mounted or portable firearm. Tibetan autobiographies usually designate as 'machine guns' the later Bren light machine gun and sometimes the Sten submachine gun, but not the earlier Lewis machine gun. However, as we have seen, Shakabpa uses retrospectively the terms *me shin gun* to explicitly designate the Lewis gun (Zhsa sgab pa, *Bod kyi srid don rgyal rabs*, vol. 2, 212-4), and *sbag sbag* to possibly designate their predecessor, the Maxim gun.

142 British reports record for 1932: "Consignments of Arms and Ammunition purchased by Tibetan Government from the Government of India, passed through Gyantse in September and November. Mipon Dingja [*mi dpon Sding bya*] was at Kalimpong seeing to the forwarding arrangements", cf. *Annual Report on the British Trade Agent, Gyantse, Tibet for the Year Ending the 31st March 1934* (IOR/L/P&S/12/4166/P3566).

143 In 1933, British reports record: "Considerable quantities of ammunition purchased from the Government of India was brought up during 1933 under the charge of Kunsang-tse [Kun bzang rtse], 6th rank official", cf. *Annual Report on the BTA, Gyantse, Tibet for the Year Ending the 31st March 1934* (IOR/L/P&S/12/4166/P3566).

144 Goldstein, *A History of Modern Tibet*, 402.

Brigadier Neame visited Lhasa in 1936 to inspect the Tibetan troops, and his subsequent report informs us that by then all Tibetan troops were equipped with Enfield rifles and plenty of ammunition, each regiment had a Lewis gun¹⁴⁵ and the whole army disposed of ten or twelve British mountain guns in addition to a few taken from the Chinese troops. However, as recounted by Goldstein, Neame's account was also a testimony of the troop's general lack of training and the shortage of ammunition, which in particular prohibited troops from practicing target shooting.¹⁴⁶ An exact and critical picture of the state of the Tibetan army's firearm equipment in 1936 based on a conversation between Brigadier Neame and the Tibetan Commander-in-chief is reported in the British Mission Diary for 31 August 1936:

The numbers and condition of weapons is roughly as follows. There are four British mountain guns in Kham [...]. There are six good Lewis guns in Kham, one with each of six regiments. There are some 5,000 good .303 rifles (for MK VII ammunition), in the hands of regulars. The militia there have a proportion of old .303 rifles (MK VI ammunition), and the remainder a very mixed lot of foreign or ancient Tibetan guns. There are six mountain guns in Lhasa, but two are condemned as useless, two are deficient of some parts and rather dangerous to fire! Two are in good order. These are 6 M. Gs. [i.e. 'machine guns'] at Lhasa of which only four are in good order. These are being used to train 300 machine gunners who when trained will be sent to Kham to those regiments on whose fidelity or staunchness the Government can rely (apparently only about half of the regular regiments are trustworthy). There are two good Lewis guns in Lhasa. The Bodyguard has 500 modern rifles and about 4,000 new rifles are in stores. One grave trouble is that the troops little care of their weapons and seldom clean them.¹⁴⁷

Though Neame, supported by Basil Gould, then Political Officer in Sikkim, recommended the purchase of new weapons, the Foreign and Political Department of the Government of India in Delhi refused to allow it, for fear of encouraging the Lhasa government to "undertake adventures on the Tibetan Chinese frontier".¹⁴⁸ Further efforts to outfit the Tibetan army with modern firearms continued after this visit, namely the import of the first light machine guns, Bren guns. Tibet-

145 A famous photograph of the "Tibetan Lewis Gun Section" taken by F.S. Chapman in 1937 is available in the *Tibet Album*, PRM 1998.131.505, F.S. Chapman collection.

146 "The Tibetan army in 1936", Goldstein, *A History of Modern Tibet*, 280-4.

147 *Lhasa Mission diary by Brigadier Neame dated 31st August 1936*, Appendix to part IV (IOR/L/P&S/12/4193).

148 Goldstein, *A History of Modern Tibet*, 286-7.



Figure 15 Example of a Bren gun: BREN Mark 2 gas operated/tilting bolt machine gun, manufactured by Enfield, UK. Copyright Board of Trustees of The Royal Armouries, Leeds

Figure 16 Example of a Sten gun: Mk.II centrefire automatic submachine gun, about 1943, Britain. Copyright Board of Trustees of The Royal Armouries, Leeds

an autobiographies first mention the use of Bren guns¹⁴⁹ (see [fig. 15]) (*sbi ran ghan / bhi reng ghan*) in the early forties.¹⁵⁰

At the same time, the first submachine guns,¹⁵¹ Sten guns (see [fig. 16])¹⁵² (*krin ghan / kran ghan / spring ghan*), were imported and used in the Tibetan army. More generally, the period from 1943 to 1950 under Regent Taktra (Stag brag, r. 1941-50) saw the resumption of regular British imports, in light of the increasing threat on the Chi-

149 The Bren gun is a series of light machine or automatic rifles that is magazine-fed, has a changeable barrel, and was used by the British army from 1937. See Fowler et al., *The Illustrated World Encyclopedia of Guns*, 332-3.

150 See the mention of their use, as well as of Sten guns, by the Tibetan army in Kham around 1941 in Ru dpon bsod nams bkra shis, *Bod dmag gcig gi mi tshe*, 27.

151 A submachine gun is a handheld, lightweight machine gun that fires pistol cartridges. Developed during the First World War, submachine gun use peaked during the Second World War.

152 The Sten gun is a British-made lightweight 'machine carbine' (British English) or 'submachine gun' (American English) that fired 9 mm cartridges and was well suited to short-range combat. Sten guns could be manufactured quickly and cheaply and they were used extensively by British and Commonwealth troops from the Second World War until they were successively withdrawn from service in the sixties. See Fowler et al., *The Illustrated World Encyclopedia of Guns*, 76-7.

nese border. Stocks of ammunition were very low in 1943 and when the Tibetan government tried to purchase ammunition, the British Raj again at first used the Second World War as an argument for limiting their exports. In 1943, the British Government of India finally consented to selling five million rounds of rifle ammunition and 1,000 shells for mountain guns, but no ammunition for the Lewis and machine guns. The purchase of various modern artillery pieces and all kinds of modern firearms available then followed. In 1944, more weapons were imported from British India and delivered to the Tibetan government from the British Mission in Lhasa.¹⁵³ As before, the British policy was to sell the Tibetans just enough to keep their army going but not more.¹⁵⁴

Later on, independent India agreed to continue such exports under the same guiding principle of limited quantities. In 1947, 144 Bren guns, 168 Sten guns, 1,260,303 rifles and 42 Very pistols (i.e. flare guns)¹⁵⁵ (but not the mortars or anti-aircraft guns that had been requested) were allowed to be purchased by Tibet.¹⁵⁶ In the fall of 1949, the Government of India agreed to sell more ammunition but refused to sell more guns despite Tibet's insistent requests. In 1950, the sale of more Bren guns, mortars and ammunition was allowed, but due to transportation difficulties (a shortage of mules), the exact number of weapons that actually reached Tibet remains unclear.¹⁵⁷ The Tibetans then turned to the American government in hope of buying more weapons but without success, as transportation would have required Indian approval, which was denied.¹⁵⁸

The former officer Gyaltse Namgyal Wangdue details the distribution of firearms (*go mtshon thob stsal*) within each unit of 250 men (*ru khag* or *ru shog*) for all regiments, at a period he designates as "later times"¹⁵⁹ (*physis su*), probably referring to the last period of the Tibetan army in 1950. This overall picture shows the progress in supplying troops with modern weapons that had been made since Neame's visit in 1936. According to Gyaltse Namgyal Wangdue, at that time, all higher-ranking officers in a unit of 250 soldiers had submachine guns, and the lower-ranking officers and soldiers had only what he

153 *Lhasa Letter for the Week Ending the 29th October 1944 from the Additional Assistant, Political Officer in Sikkim, Officer in Charge, British Mission, Lhasa (IOR/L/P&S/12/4201).*

154 See also Goldstein, *A History of Modern Tibet*, 404.

155 Named after its inventor Edward Wilson Very, it is a single-shot, large-bore handgun designed to fire flares (Very lights) as a signal or for illumination.

156 Goldstein, *A History of Modern Tibet*, 619.

157 Goldstein, *A History of Modern Tibet*, 662.

158 Goldstein, *A History of Modern Tibet*, 620.

159 Rgyal rtse nam rgyal dbang 'dud [sic], *Dmag gi lo rgyus rags bsdsu*, 30.

calls “hand guns”¹⁶⁰ (*lag mda'*) (the use of this term could be understood as a type of pistol or side arm, however it seems that the author could actually mean rifles; see [tab. 3] enumerating the troops' equipment a few years later by a Chinese author named Khreng ping in which long arms – *mda' ring* – are explicitly mentioned as the weapon issued to basic soldiers); in addition each unit had three squads of soldiers equipped respectively with submachine guns, Bren guns, and full-size machine guns, and two squads of soldiers equipped respectively with two-inch or three-inch mortars:

The thirteen higher officers (i.e. the *ru dpon* [head of the whole unit of 250 soldiers], the *brgya dpon* [head of 100 to 125 soldiers] and the *lding dpon* [head of twenty-five soldiers]), each had a sub-machine gun (*sab mi shin ghan*); all subaltern officers (i.e. the ten *lding tshab* and *dge che*, the twenty *bcu dpon*), each had a side arm (*lag mda'*); the twenty soldiers and instructors of the Bren gun (*bhi rin ghan*) squad had ten Bren gun and ten pistols; the five soldiers and instructors of the machine gun (*mi shin ghan*) squad had one machine gun and one gun; the ten soldiers of the three-inch mortar (*thi ri in ci mo krór*) squad had two three-inch mortars and two guns; the eighteen soldiers of the two-inch mortar (*kru'u in ci mo krór*) squad had six two-inch mortars and six guns; the twenty instructors and players of the music band (*bha dung*) each had a gun; the ten men who did various tasks in the military camp (*dkyil sgar khongs las rigs*), each had a side arm.¹⁶¹

Another, but later, account of the precise firepower of the six remaining regiments of the Tibetan army, based on an examination of the troops by the Chinese authorities in 1958 (see [tab. 3]), confirms overall the above-mentioned distribution of weapons in the core regiments of the Tibetan army (six regiments) during the final years of its existence.¹⁶² Even if this source pertains to a later period, it gives an idea of the probable repartition of weapons in former years and shows that the army was equipped with modern weapons, though the most modern ones seem to have been limited to officers and a few squads.

¹⁶⁰ Rgyal rtse nam rgyal dbang 'dud [sic], *Dmag gi lo rgyus rags bsdus*, 30.

¹⁶¹ This passage appears only in the first version of his book dated 1976 (Rgyal rtse nam rgyal dbang 'dud [sic], *Dmag gi lo rgyus rags bsdus*, 30-1), but is not included in the later edition published by the Association of Tibetan Veterans (Rgyal rtse nam rgyal dbang 'dus, *Bod rgyal khab kyi dmag don lo rgyus*). If not otherwise stated, the translations were made by the Author.

¹⁶² Khreng ping, “Bod dmag gi lo rgyus mdor bsdus”, 187. The regiments were named after the alphabetic order, with the first regiment, the Bodyguard, called the “Ka dang dmag sgar”, the second regiment called the “Kha dang dmag sgar”, also known as the “Trapchi Regiment”, the third was the “Ga dang dmag sgar”, etc.

Table 3 Firearms of the six regiments remaining in 1958 according to Khreng ping¹⁶³

Regiment's (<i>dmag sgar</i>) name	General's (<i>mda' dpon</i>) name	Number of soldiers and officers	Number and type of weapons				
			<i>mda'</i> <i>ring</i> [rifle]	<i>krin kann</i> [Sten gun]	<i>sbi rings</i> <i>kan</i> [Bren gun]	<i>mi shin kan</i> [machine gun]	<i>me sgyogs</i> [cannon]
Ka dang [i.e. Bodyguard]	Stag lha Phun tshogs bkra shis	645 (of which 32 officers)	600	200	46	4	8
Kha dang [i.e. Trapchi]	Bkras dpal rdo rje tse brtan Bsam pho Bstan 'dzin don grub	1,023 (of which 56 officers)	900	50	56	4	22
Ga dang	Nu ma mi 'gyur rdo rje	570 (of which 41 officers)	1,000	32	20	4	14
Nga dang	Mdo mkhar Bsod nams stobs rgyas	489 (of which 27 officers)	500	15	10	1	0
Ca dang	Brag 'jun	120 (of which 5 officers)	500				
Ja dang	'Jun pa Ngag dbang dpal mo	357 (of which 20 officers)	300	1	10	0	4

To sum up the history of weapon imports during this period, one sees that modern firearms could be procured only from 1914, and in higher quantities from 1921 onwards. With the exception of the first batch in 1914, which were already somewhat outdated, subsequently imported weapons progressively reflected the highest standards of modern firearms available at the time. For instance, while the firearms used during the First World War in British India (the Lewis, the Vickers) were imported to Tibet respectively only in the twenties and thirties, due to the 'delayed' start of imports from British India to Tibet, those used during the Second World War (the Bren, the Sten) rapidly found their way to Tibet.¹⁶⁴ The Tibetan government thus managed to some degree to keep pace with the rapid technological progress in firepower in the rest of the world, to the effect that Tibetan troops were armed in the late forties with some of the most modern firearms of the day. However, the strategy was only partially suc-

¹⁶³ This table is a translation of a table included in Khreng ping, "Bod dmag gi lo rgyus mdor bsdus", 187.

¹⁶⁴ Following detailed scrutiny of the nature of imported firearms up to 1950, Goldstein's assessment of the situation in 1944 that "normally they sold old and out-of-date weaponry, and even that in pitifully small amounts" (Goldstein, *A History of Modern Tibet*, 403) seems in fact to be more accurate for its second part regarding the quantities and less accurate regarding the age and condition of the firearms sold.

cessful, since these imports did not meet the quantities required to equip the majority of the troops, but only the officers and particular 'squads', leaving the remaining majority of soldiers armed only with the old Enfield rifles through the end of the period under scrutiny. The rhythm of transactions also shows how highly dependent imports were not only on Tibetan internal political changes but also on British and then Indian diplomacy, these two partners consistently limiting their exports for diplomatic reasons in calculation of China, without entirely fulfilling Tibet's demands for weapons.

4.3 Knowledge Transfer around New Firearms. Organisation of Troops' Training

Given the rapid pace with which these new firearms were introduced to Tibet between 1914 and 1950, training Tibetan troops in their use and maintenance represented a strategic aspect for the Tibetan government during the whole period under scrutiny. In this point Tibetans were again dependent on the British (from whom these weapons were purchased), and on the amount of ammunition sold to them, which seems to have been chronically insufficient to allow for proper training. The chronology of training appears to directly parallel the chronology of the firearm imports detailed above. After the initial acquisition of 5,000 British rifles in 1914, two Tibetan officers, Drumpa *dzasak* (Brum pa *dza sag*) and Doring *téji* (Rdo ring *tha'i ji*) along with fifty soldiers of the Bodyguard regiment were trained in military drills by the Indian escort of the British Trade Agent in Gyantse (Rgyal rtse) in 1915.¹⁶⁵

In the early twenties, the British undertook the most significant training of Tibetan troops in the use of these newly imported weapons both in Tibet and in India. During 1922 and 1923, a total of 350 soldiers and four officers of the Tibetan army - with the rank of General or *dapön* (*mda' dpon*) or Colonel or *rupön* (*ru dpon*) - were trained locally in Gyantse (Tibet) by the British in the use of the rifles and the Lewis guns acquired in 1921: 100 soldiers and three officers - Changchen *gung* (Lcang can *gung*), the above-mentioned Doring *téji* and *rupön* Démön (*ru dpon* Bde smon) - were trained under the leadership of Captain Parker and the Indian escort in the spring of 1922;¹⁶⁶ Parker's personal archive and a set of photographs taken

¹⁶⁵ Tsarong, *In the Service of His Country*, 49. On the military training of Doring *téji*, aged 15, in Gyantse in 1915, see also Bell, *The People of Tibet*, 91-2. Upon their return to Lhasa, these two officers immediately trained the soldiers newly recruited by Tsarong, *In the Service of His Country*, 49.

¹⁶⁶ *Annual Report on the British Trade Agency at Gyantse for the Year 1921-1922 (for the Year Ending the 31st March 1922) Dated the 18th April 1922, Gangtok from the Po-*

by H.R.C. Meade in Gyantse in 1922 (see [fig. 12])¹⁶⁷ record that the training was still going on in August with a fourth officer participating, probably Tsogo *rupön* (Mtsho sgo ru dpon), who is described in British archives as having undergone training in Gyantse with the three other officers and 250 soldiers in 1922-23 under the command of Parker's successor, Captain G.B. Williams.¹⁶⁸

Training was also organised in British India, in Quetta (Tib. Ko Ta, now in Pakistan) for four Tibetan officers and their soldiers in 1922 and 1926: two officers, Sampo *téji* (Bsam grub pho brang *tha'i ji*) and Dingja *kusho* (Lding bya sku zhabs) from October 1922 to May 1923, and twenty soldiers were to be trained in "big gun drill";¹⁶⁹ two other officers, Norgyé Nangpa (Nor rgyas nang pa) and Yutok Tashi Döndrup (G.yu thog bkra shis don grub) and soldiers were to be trained in artillery for eight months in 1925-26 (an episode after which we learn that some of the soldiers suffered from malaria and were treated in Kalimpong hospital).¹⁷⁰ Others were trained in Shilling (Shillong). However, their return coincided with a time when the Thirteenth Dalai Lama entertained suspicion against the military establishment in Tibet and the British were astonished at the fact that the two officials last trained were not afterwards appointed to posi-

litical Officer in Sikkim to the Government of India in the Foreign and Political Department, Simla (IOR/L/P&S/10/218/P2135).

167 For a study of that particular episode, based on Meade's photographs and Parker's archive, see Travers, "L'entraînement de l'armée tibétaine".

168 *Annual Report on the British Trade Agency at Gyantse for the Year 1922-1923 (for the Year Ending the 31st March 1923) Dated the 27th April 1923, Gangtok, from the Political Officer in Sikkim to the Government of India in the Foreign and Political Department, Simla* (IOR/L/P&S/10/218/P2120). Goldstein concluded to slightly different but comparable figures (Goldstein, *A History of Modern Tibet*, 120-1).

169 *Transmits Copy of Despatch from British Trade Agent at Yatung Reporting on Appointments etc. among Officials from D. Macdonald, British Trade Agent, Gyantse, Tibet to the Deputy Secretary to the Government of India in the Foreign and Political Department, Delhi, Dated the 12th April 1923, Gyantse* (FO/371/9186); *Copy of a Confidential Letter Dated the 26th May 1923, Yatung, from British Trade Agent Dated the 10th July 1923* (FO/371/9187); *Annual Report on the British Trade Agency at Gyantse for the Year 1922-1923 (for the Year Ending the 31st March 1923) Dated the 27th April 1923, Gangtok, from the Political Officer in Sikkim to the Government of India in the Foreign and Political Department, Simla* (IOR/L/P&S/10/218/P2120). See also Goldstein, *A History of Modern Tibet*, 121.

170 *Annual Report on the British Trade Agent, Gyantse, Tibet for the Year Ending the 31st March 1926* (IOR/L/P&S/12/4166/P2080); *News Report from the Political Officer in Sikkim, from Williamson, Political Officer, Sikkim, to Foreign Secretary to the Government of India, Dated the 8th November 1926, Gangtok* (FO/371/11680); *Annual Report of the British Trade Agency, Gyantse, for the Year Ending the 31st March 1927, Dated the 13th March 1927, Gyantse, from A.J. Hopkinson, British Trade Agent, Gyantse and Assistant to the Political Officer in Sikkim* (FO/371/12510). Yutok Tashi Döndrup's wife briefly mentions her husband's year of training in the company of *ru dpon* Bsod nams bkra shis in his biography, cf. G.yu thog, *Yab gzhis g.yu thog*, 13.

tions involving the supervision of troops.¹⁷¹

The next British training followed the 1932 purchase of the first machine guns to arrive in Tibet: Yutok Tashi Döndrup and twenty-five soldiers of the Bodyguard regiment were trained in these new weapons in Gyantse by Captain W.D. Marshall of the “1/5th Mahratta Light Infantry” from August to December 1932.¹⁷² Taring Jikmé Sumtsen (the above-mentioned author of the history of weapons in Tibet) served as his translator and received training as well. After the training they returned to Lhasa and performed a complimentary parade in Norbulingka before a reportedly “very enthusiastic” Thirteenth Dalai Lama.¹⁷³ Yutok and Taring became the commanding officers of the new elite regiment created by Künpela.¹⁷⁴

The passing of the Thirteenth Dalai Lama resulted in a stop to the military modernisation plan, and when Brigadier Neame visited Lhasa in 1936, his assessment of the troops was very negative, particularly pointing out their lack of training, despite possessing a number of modern weapons.¹⁷⁵ The subsequent plan proposed by Gould and Neame, to offer more intense weapons training (and sell more weapons) to the Tibetans was turned down by the Foreign and Political Department of the Government of India.¹⁷⁶ However, after a pause during its first years, Taktra’s regency was marked by the renewed training of troops from 1943 onwards.¹⁷⁷ A new British drill instructor, Lieutenant Sendall, trained Tibetan officers and troops in the use of the Ordnance BL 2.75-inch mountain gun [fig. 18]¹⁷⁸ in both Gyantse and Lhasa in January and February 1944.¹⁷⁹

171 *Annual Report of the British Trade Agency, Gyantse, for the Year Ending the 31st March 1927, Dated the 13th March 1927, Gyantse, from A.J. Hopkinson, British Trade Agent, Gyantse and Assistant to the Political Officer in Sikkim* (FO/371/12510).

172 *Annual Report on the British Trade Agent, Gyantse, Tibet for the Year Ending the 31st March 1934* (IOR/L/P&S/12/4166/P3566); *Report on a Visit to Lhasa in 1933, Letter from F. Williamson, Political Officer in Sikkim, Dated the 6th January 1934, Gangtok* (FO/371/20221).

173 *Annual Report on the British Trade Agency, Gyantse, Tibet for the Year Ending the 31st March 1934* (IOR/L/P&S/12/4166/P3566).

174 Goldstein, *A History of Modern Tibet*, 152.

175 Goldstein, *A History of Modern Tibet*, 284.

176 Goldstein, *A History of Modern Tibet*, 286-7.

177 Goldstein, *A History of Modern Tibet*, 403.

178 The Ordnance BL 2.75-inch mountain gun is a screw gun (i.e. an artillery piece consisting of a breech piece that is screwed into the barrel for loading) designed for and used by the Indian Mountain Artillery into the First World War; it replaced the ten-pounder mountain gun and in the British Army was itself superseded by the Howitzer.

179 The two officers who received gunnery course were Horkhang se (Hor khang sras) and Kharnawa (Khar na ba) rupön, cf. *Gyantse News Report for the Period Ending the 25th January 1944, from Assistant Political Officer, Gyantse, Tibet* (IOR/L/P&S/12/4208/P880); *Lhasa Letter for the Week Ending the 23rd January 1944 de Major G. Sheriff, Ad-*

After Indian independence, the Indian escort continued to train Tibetan troops in Gyantse, for instance in 1948.¹⁸⁰ In August 1950, the Tibetan government decided to send for training not only military officers and soldiers, but government officials as well. The then Indian (previously British) Political Officer in Lhasa, Hugh Richardson, observed: "Twenty young monk officials and twenty young lay officials are receiving training at Lhasa in the use of Bren guns. Military training for monk officials is an innovation. The trainees are said to be enthusiastic and able".¹⁸¹

Reading Tibetan soldiers' and officers' biographies offers an insight into the way in which the Tibetan government organised and tried to maximise the diffusion of technical knowledge. These accounts shed light on what a pivotal role the Bodyguard regiment (*ka dang sku srung dmag sgar*) played. Throughout the entire first half of the twentieth century, the regiment remained the showcase regiment of the Tibetan army; its officers were the first to be trained by the British in Gyantse in 1915, and later on a large number of its members were sent to Gyantse and/or India to be trained in the use of artillery. According to both British archives and several autobiographies of soldiers in the Bodyguard regiment, the regiment served as a reservoir of skilled and trained troops. To give an example, the former Bodyguard officer Sekshing Lozang Döndrup (*Sreg shing blo bzang don grub*) describes in his autobiography how Bodyguard soldiers who had been trained in target shooting with all kinds of modern weapons, and in disassembling and reassembling these firearms, were then sent to other regiments to pass on those skills to other officers and soldiers.¹⁸² In 1932 for instance, after twenty-five soldiers of the Bodyguard regiment were first trained in the use of new machine guns in Gyantse,¹⁸³ they returned to Lhasa and the train-

ditional Assistant to the Political Officer in Sikkim, Officer in Charge, British Mission, Lhasa (IOR/L/P&S/12/4201).

180 *Lhasa Letter for the Week Ending the 20th June 1948 from H.E. Richardson, Officer in Charge, British Mission, Lhasa (FO/371/70042).*

181 *Monthly Report of the Indian Mission, Lhasa, for the Period Ending the 15th August 1950, from H.E. Richardson, the Indian Trade Agent, Gyantse, and Officer in Charge, Indian Mission, Lhasa, Political Officer, Gyantse, Tibet, to the Political Officer in Sikkim, Gangtok (FO/371/84453).* See also Goldstein, *A History of Modern Tibet*, 621.

182 *Sreg shing, "De snga'i bod dmag ka dang sku srung dmag sgar", 251.*

183 Taring's account as reproduced in Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 34 (and Gyaltshe Namgyal Wangdue, *Political and Military History of Tibet*, vol. 1, 28) and "Military: Early in August 1932, the Tibetan Government sent Yuthok Se Tashi Dhondup new Depon, and twenty-five soldiers of the 'Royal Guards Regiment' to Gyantse for instruction by Captain W.D. Marshall in Machine Gunning and Bombing. Yuthok Se underwent five months of training in gunnery at Quetta in 1928. Kumar Jigme Tering was deputed as interpreter and was also ordered to undergo the training at the same time. The officers and men remained until

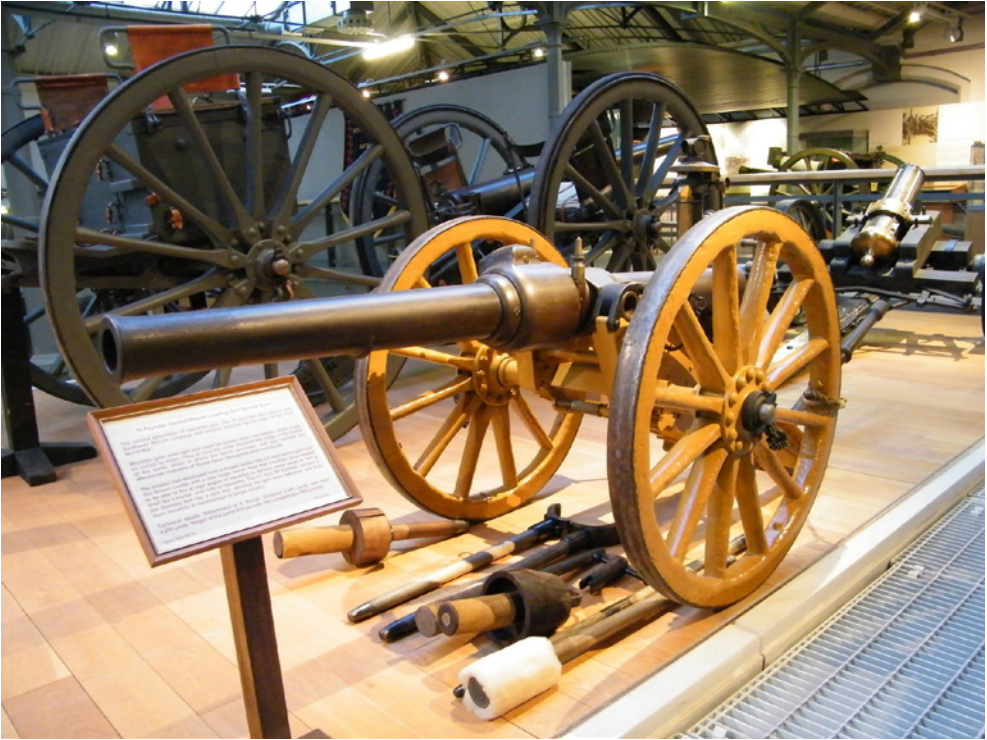


Figure 17 Example of a ten-pounder mountain gun, 1902 (Firepower Royal Artillery Museum, Woolwich, UK, CC BY-SA 3.0)

ees were immediately dispatched to other regiments, whom they instructed in machine gun drills, while Taring, who had also taken part in the programme in Gyantse, trained the new elite Trapchi regiment in its entirety as its commanding officer. In the following years, soldiers from various regiments received training in the ten-pounder mortar artillery (*me sgyogs kran pon krar*, see [fig. 17]) under the Bod-yguard regiment officer *dingpön* Dingja Lhakpa (*lding dpon* Sding bya lhaq pa), who had been trained by the British in artillery.

After such training, the best soldiers were sent to Kham to expand training to the other regiments stationed on the border with China.¹⁸⁴

the 1st week of December, when they were called to Lhasa. His Holiness the Dalai Lama was very pleased with the progress made". Cf. *Annual Report of the British Trade Agency, Gyantse, for the Year Ending the 31st March 1933, Dated the 4th April 1933, Gyantse*, from A.A. Russell, *British Trade Agency, Gyantse and Assistant to the Political Officer in Sikkim* (FO/371/17138).

184 Taring's account as reproduced in Rgyal rtse rnam rgyal dbang 'dus, *Bod rgyal khab kyi dmag don lo rgyus*, vol. 1, 37 (and Gyaltsé Namgyal Wangdue, *Political and Mil-*



Figure 18 Example of an Ordnance BL 2.75-inch mountain gun (Heugh Battery Museum, Hartlepool, UK, CC BY-SA 3.0)

In October 1944, the Trapchi regiment (*grwa bzhi kha dang dmag sgar*) was receiving instruction in the Ordnance BL 2.75-inch mountain gun (see [fig. 18]) from the Bodyguard regiment, who had learned its operation from the British in Gyantse and Lhasa early in 1944.¹⁸⁵

A good depiction of how the training was organised is recounted in the autobiography of *rupön* Sonam Tashi (*ru dpon* Bsod nams bkra shis) based on his experiences.¹⁸⁶ Born in 1915, he entered the Bodyguard regiment in 1927, at the early age of 12. After a few years of being trained as a bugler and drummer, and of working on a construction site, he started his training as a proper soldier. He climbed the ranks of

itary History of Tibet, vol. 1, 30).

¹⁸⁵ Lhasa letter for the week ending the 22nd October 1944 from Major G. Sheriff, Additional Assistant, Political Officer in Sikkim, Officer in Charge, British Mission, Lhasa (IOR/L/P&S/12/4201).

¹⁸⁶ Ru dpon bsod nams bkra shis, *Bod dmag gcig gi mi tshé*.

officer, and was one of the few elite soldiers trained by the British. At the time he already knew how to fire a Lee-Enfield rifle, which belonged to the basic equipment of the members of the Bodyguard cavalry. He was among the twenty-five soldiers of his regiment trained in the use of Lewis guns, and the newly acquired machine guns and grenades (*lag 'bom*) in Gyantse in 1932. He was then sent to India for further training. In all, *rupön* Sonam Tashi spent over ten years of his military career teaching, moving between various regiments to train soldiers in the use, maintenance and repair of their new modern firearms. In 1941, then a Major (*lding dpon*), he, Yutok and two other teachers named Parchin Ngödrup (Phar phyin dngos grub) and Norbu Wangdü (Nor bu dbang 'dus) went to Chamdo in Kham, taking two machine guns, supplies and ammunition. There for two years, they taught soldiers from other regiments (Gadang, Chadang and Tadang) how to operate machine guns. Then *rupön* Sonam Tashi was sent to Dergé Jomda (Sde dge 'jo mda') on the eastern border with China to repair damaged machine guns. Later on, when the Chadang regiment was issued one machine gun, he was sent to them to teach twenty-five soldiers who belonged to the bodyguard of the Eastern Tibet Commissioner (Mdo spyi). Because his teaching in the Chadang regiment was considered a success, the Gadang regiment then requested that he teach them as well and he was ordered to teach one officer (with the rank of *zhal ngo*, i.e. equivalent to *lding dpon*) and six soldiers from each of the four units of 250 soldiers (*ru shog*), a total of twenty-eight soldiers in this regiment, how to use machine guns, maintain, disassemble and reassemble (*bshig sgrig*) them. He also authored a manual. In 1947, he received further training himself:

It was decided that I would learn Bren guns (*sbi ran ghan*) and Sten guns (*krin ghan*) in Gyantse, with six soldiers of the Bodyguard regiment and six soldiers of the Trapchi (*kha dang*) regiment under two Indian instructors, specialised in automatic guns (*'phrul mda'*) [...]. After seven days, an order came from the Army headquarters in Lhasa (*dmag spyi khang*) that the twelve soldiers who had been trained in Gyantse should pass on their knowledge to fellow soldiers in their regiment, and that the Bodyguard soldiers should train the soldiers of the Fourth (*nga dang*) regiment and the Trapchi soldiers should train the Sixth (*cha dang*) regiment. We twelve thus had to teach eighty soldiers from the Trapchi, fifty soldiers from the Bodyguard and twenty soldiers from the Fourth regiment, and when everyone was well trained, they should have a target shooting examination. At this time, on the day of the target shooting examination, we had at our disposal around 400 Bren guns (*sbi rang han [sic]*), and the Council of ministers (*bka' shag lhan rgyas*) came to attend.¹⁸⁷

¹⁸⁷ Ru dpon bsod nams bkra shis, *Bod dmag gcig gi mi tshé*, 28.

Thus, a one-week training of only twelve soldiers by two Indian instructors resulted ultimately in more than 150 Tibetan soldiers being trained to some degree in the use of Sten submachine and Bren light machine guns. Three years later in March 1950, only a few months before the Chinese invasion, *rupön* Sonam Tashi was again sent with a shipment of Bren guns and Sten guns to train troops under the command of Lhalu Tséwang Dorjé (Lha klu tshe dbang rdo rje, 1914-2011)'s troops in Chamdo.¹⁸⁸

Thus, it is apparent that the central command of the army implemented a coordinated dissemination programme to other regiments throughout Tibetan territory, aimed at maximising the effects of having a limited number of soldiers and officers trained by the Anglo-British and then Indian army.

5 Conclusion

This paper has shown that a rapid modernisation of the Ganden Phodrang army's firepower was achieved during the early twentieth century, through both local production and importation within a remarkably short period of fifty-five years. If the Tibetan government has tried and failed to produce itself its own modern weapons for lack of technological means, it succeeded in obtaining the best available weapons and training. However, the Tibetan government did not manage to fully modernise its army firepower through imports, because the country put itself in a situation of dependency on a sole ally, British India, that carefully regulated the transfer of technology and supplies of weapons.

British and Tibetan archives as well as the autobiographies of Tibetan soldiers, taken together, testify to the many challenges the Tibetan government and its army faced during this modernisation process. The paper has retraced the actions taken by the Tibetan government towards this modernisation, which first witnessed the peak of technical transformation in local manufacture during the early years of the reign of the Thirteenth Dalai Lama (1895-1933) thanks to the acquisition of gunnery technology and knowledge from both China and India. However, local manufacture rapidly proved to be only a backup solution, especially to face the shortage of ammunition and the lack of imports from neighbouring countries. Both the failure of the first strategy revolving around local production and the possibilities for arms acquisitions opened by a new diplomatic relationship with British India after the end of the Manchu Empire led to a progressive, strong shift towards the import strategy. The unprece-

¹⁸⁸ Goldstein, *A History of Modern Tibet*, 641.

mented increase of imported arms from 1914 to 1947 under the aegis of British India and, after 1947, India, proved to be the only tactic to keep up with the rapid development of firearms during this period.

The Tibetan terminology of modern firearms consists largely of phonetic renderings of Chinese for the first phase up to 1911, and for the greater part of English terms after this date, thus witnessing to the prominent role played by Tibet's neighbours in the 'firearms revolution' that Tibet experienced between 1895 and 1950.¹⁸⁹ However, this reliance on import put Tibet in a state of dependency towards Great Britain and was simultaneously problematic since Great Britain deliberately restricted their weapon exports to Tibet. During the entire period in question, the British Indian army's training of Tibetan soldiers in the use of their newly acquired weapons was limited to a few selected officers and soldiers. Nevertheless, the Tibetan government put measures in place to maximise the effect, by passing on the required knowledge to as much of its army as possible. In the end, all these examples clearly illustrate the many difficulties faced by a government that was trying to modernise its army firepower rather suddenly and, in a rush, to catch up with its more technically advanced and overbearing neighbours. These troubles were additionally compounded by the extreme political isolation of the country, that, after several decades of minimal contact with the external world in the second half of the nineteenth century, found itself scrambling to connect diplomatically, politically and commercially with surrounding polities.

¹⁸⁹ Exceptions are the Tibetan terms *me mda'* / *bod mda'*, *dbyin mda' kha ring*, *dbyin mda' kha thung*, *thung mda'*, *'phrul mda'* for light firearms and *me sgyogs* for artillery, see Appendix 1.

Appendix 1

Chronological Appearance and Terminology of Firearms in Tibet

Tibetan name (used in soldiers' autobiographies)	Signification and origin	Years of use in Tibet
Light firearms		
<i>bod mda'</i>	Muzzle-loading Tibetan-made musket, matchlock / 'prong gun'	Until the first decade of the twentieth century in the Tibetan army (but well beyond in non-military situations)
<i>grib yang can / yang chan</i>	Probably a type of breech-loading long gun, like a bolt-action rifle. From the Chinese <i>yangqiang</i> 洋槍 (a general word for musket or long gun). Produced in Lhasa at the Drip factory after a Chinese model (nine-cartridge magazine)	From 1896
<i>cu rtsi pa'o</i>	Probably a type of cannon. From the Chinese <i>zhujiepa</i> 竹節炮 (a cannon looking like a bamboo tube with ring-nodes). Produced in Lhasa at the Drip factory	From 1896
<i>dbu zhang</i>	A musket or long gun. From the Chinese <i>buqiang</i> 步槍. Produced in Lhasa at the Drip factory	From 1896
<i>mdel lcags shubs can gyi me mda' ring po</i>	A long gun with a metal magazine for bullets	From 1912
<i>'phrul mda' yang chang</i>	A type of modern rifle produced in Lhasa at the Yamön factory	From 1914
<i>dbyin mda' kha ring</i>	Lit. 'British long barrel long gun', i.e. the Lee-Metford .303 calibre rifle Mk I and Mk II (imported)	From 1914
<i>dbyin mda' kha thung / dbyin mda' kha dum / dbyin mda' kha 'dum</i>	Lit. 'British short barrel long gun', i.e. the Short Magazine Lee-Enfield (imported)	From 1914, imported and then copied
<i>thung mda'</i>	Lit. 'short firearm', probably a type of side arm	
<i>'phrul mda'</i>	Designating any modern long gun with a mechanism more advanced than a matchlock: first, in the late nineteenth and early twentieth century, a breech-loading long gun like a bolt-action rifle, and later, in the thirties to forties, an automatic machine gun or submachine gun, like the Bren and Sten (see below)	
<i>lu'u si ghan / lu'u sin ghan / lu yi si ghan / lu si 'gan / lu se 'gan</i>	Lewis gun (seized and later imported)	1912 and 1921

Tibetan name (used in soldiers' autobiographies)	Signification and origin	Years of use in Tibet
<i>me shin gun /mi shin ghan / meg sin ghan /sbag sbag / me mda' sbag sbag</i>	Machine gun (imported). Generic term including, in Shakabpa's work the Lewis gun. Later, from the thirties, designates the new generation of machine guns as the Vickers gun, the Bren and Sten guns, but not the Lewis gun anymore.	1912 (earliest use in Shakabpa's work) 1932 (earliest use in Tibetan biographies)
<i>lag 'bom</i>	Hand grenade	1932 (earliest use in Tibetan accounts)
<i>bhe ran ghan /sbi ran ghan / /bhi reng ghan</i>	Bren gun (imported)	1941 (earliest use in Tibetan accounts)
<i>kran ghan /spring ghan / krin ghan</i>	Sten gun (imported)	1941 (earliest use in Tibetan accounts)
<i>sab sbag sbag</i>	Submachine gun (gen.) (imported)	
Artillery		
<i>me sgyogs</i>	Cannon (produced in Lhasa since the eighteenth century and into the early twentieth century)	
<i>gor kha yang chan</i>	A type of cannon produced in Lhasa	c. 1890
<i>sbag sbag?</i>	Maxim gun (imported)?	1912?
<i>kran phon po kran /me sgyogs kran pa 'on krar</i>	10-pound tank/10 pounder mountain gun (imported)	1921?, confirmed operation in 1924, continued in Lhasa in 1936
<i>me sgyogs (no specific term known)</i>	Ordnance BL 2.75-inch mountain gun (imported)	Exact date of acquisition unknown. Extant in Tibet in 1943
<i>me sgyogs che ba ha'o dzar / /ha'o dzar / ha wi dzar</i>	Howitzer (between an artillery gun/cannon and a mortar) (imported)	Exact date of acquisition unknown. Extant in Lhasa in 1947
<i>kru'u in ci mo krar /thi ris in ci mo krar)</i>	2-inch mortar / 3-inch mortar (imported)	First date of acquisition unknown. In possession of the Tibetan army in 1950

Appendix 2

Copy of a Written Order from the *Amban* Which Forbids the Manufacture and Storage of Weapons, Dated 1910. Transliteration of the Tibetan Archive Document Published as Document 157. *Qingdai Xizang difang dang'an wenxian xuanbian*. Xizang Zizhiqiang dang'an guanbian. Beijing: Zhongguo Zangxue chubanshe, 2017, vol. 1, 577 and vol. 3, 732.

// lcags khyi zla 2 tshes 10 nyin phul 'byor dgra chas me sgyogs / me mda' bzo bskrun mi chog pa dang / bzos zin rigs gzhung sger sus [su'i] khongs yod rung phyir bsdus thog tho gzhung 'bul dgos wang shu'i ngo bshus /

// Z gong ma chen po'i bkas mngags rma bya'i sgro mdongs dang / phu tu thung gi go gnas 'dzin pa bod sdod las byed blon chen lan am ban nas bkod khyab kyi rtsis 'jog las don zhu lugs dgos rgyu'i yi ge btang don / zhib na ngos Z rgyal khab kyi gtan 'beb rgyas dpyad du mnga' khongs mi ser nas rang sger dgra chas bzo mi chog pa dang / dmag mi'i dgra chas nyar tshags bgyis pa'i 'gal rigs byung tshe khrims srol zhin [bzhin] nyes dpyad bya dgos la khyod rang gzhung gnas me gser Z snyan ma sgron par rang mtshams me mda'i bzo khang btsug ste me mda' / me gyogs [sgyogs] bzo dbyibs ma gcig khag bzo bskrun bgyis pa ni dpyad mtshams dang 'gal ba ci cher brten nged blon chen nas zhib 'jug gi [gis] bzo khang 'di bzhin dam bcad kyi slar yang rang mtshams btsug bzo mi chog cing / lhag par de ga bzo khang du sngon bzos me mda' ji yod dang / nyo sgrub bgyis pa'i me mda' gzar pa'i rigs / bod dmag la sprad pa'i grangs 'bor / lag yod bsogs 'jog grangs 'bor bcas dang / bod dpon rigs mi ser nas nyar tshags bgyis pa'i me mda' gzar pa'i rigs kyi skor chab gcig [chabs cig] bkod khyab tsha nan gyis brtsad dpyod [rtsad gcod] ma bgyis tshe dpyad mtshams la rtsa 'gangs dang / bde 'jags bsrung 'doms yong min bcas / de'i ched yi ge 'di bzhin btang ba khyod rang gzhung gi las don gzhor [snyor?] skyongs byed po dga' ldan khri 'dzin nas rtsi 'jogs kyi wang shu'i 'bru don ltar 'phral du re re bzhin bkod khyab kyi phra zhib brtsad dpyod [rtsad gcod] bgyis pa las / sbugs bkums [sbug skung] g.yo zol rigs mi chog cing / brtsad dpyod [rtsad gcod] bgyis pa'i me mda' bsog 'jogs dang / grangs 'bod phyir sprad byas rigs / mi ser nas me mda' gzar pa sger tshag byas pa sogs zhib gsal tho gzhung 'di na ya mon du phul 'byor byung bstun zhib 'jug byed bde yong gnas la phar 'gyangs ka skor du 'gro rigs shar tshe nyes pa thob yong bas / de don 'gal med yong ba gyis / shon thong khri bzhugs gnyis pa zla 2 tshes 9 la /

Appendix 3

Undated Report of a Tibetan Named Tamdrin Selling Bullets.
Transliteration of the Tibetan Archive Document Published
as Document 157. *Qingdai Xizang difang dang'an wenxian xuanbian*.
Xizang Zizhiqu dang'an guanbian. Beijing: Zhongguo Zangxue
chubanshe, 2017, vol. 1, 158 and vol. 3, 720.

gus 'bangs rta mgrin nas phul ba / 'khrun chod zin /
// gus 'bangs rta mgrin nas zhu ba / gus pa 'ong stod zhing khar
me mde'u re gnyis rnam kun 'khroms [khrom] bton byed bzhin lags
pas / nye bcar [char] zla 8 tshes 16 nyin gong bzhin khrom sar sdad
[sdod] mus skabs ser 'bras kyi grwa rigs 'dra ba zhid gi [gis] u shang
mde'u dgu dngul zho bdun skar lngar spus tshong byung stabs gus
pa'i khrom sar mde'u re gnyis dang byung mde'u rjes [brje] len skabs
rlung rta chu 'dren lta bus lag nas me 'bar ba las / rang bzhin dal
rgyag gi spyod ngan zhus rigs bstan [gtan] nas med pa dang / de 'brel
bod bzos mde'u rnam gus pas rgyu 'gro khrom nas spus sgrubs kyi
bzo mi rdo [dog] sde'i bzo pa chu rgyus pa yin lags na / gong gsol rgyu
mtshan la he bags [bag] med gshis bla dpon byams brtse'i mnga' bdag
mchog nas nyam chung nyin tshes nyin 'khor lto 'tshol la dgongs pa'i
lha rab mde'u 'phros lus rnam gsol ras thugs rje che ba zhu rgyu'i
zhu rtags su /

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vol. 3, 720) *Qingdai Xizang difang dang'an wenxian xuanbian*. Xizang Zizhiqu
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