

# 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.

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**Edizioni**  
Ca' Foscari

## Peer review

Submitted	2021-02-10
Accepted	2021-04-29
Published	2021-12-10

## Open access

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**Citation** La Rocca, D. (2021). "Armour and Weapons in Tibet from Yongle to Younghusband: Learning from Object-Driven Research". *Annali di Ca' Foscari. Serie orientale*, 57, supplement, 755-802.

DOI 10.30687/AnnOr/2385-3042/2021/02/002

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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.<sup>1</sup> 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.<sup>2</sup>

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.<sup>3</sup> 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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This article is published in a volume edited in the context of the 'TibArmy' project, which has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement 677952).

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](http://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.<sup>4</sup> 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*.<sup>5</sup>

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-

<sup>4</sup> 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.

<sup>5</sup> 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;<sup>6</sup> 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.<sup>7</sup>

## 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-

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<sup>6</sup> 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.

<sup>7</sup> 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.<sup>8</sup>

### 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

<sup>8</sup> 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.<sup>9</sup> 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]).<sup>10</sup>

### 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.<sup>11</sup> 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-

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

<sup>10</sup> 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*”.

<sup>11</sup> 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*).<sup>12</sup> 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.<sup>13</sup> 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].<sup>14</sup>

### 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].<sup>15</sup> 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.

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

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

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

<sup>15</sup> 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.<sup>16</sup> 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.<sup>17</sup>

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.<sup>18</sup> 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,

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

<sup>17</sup> La Rocca, *Warriors of the Himalayas*, catalogue nos. 41-4.

<sup>18</sup> 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.<sup>19</sup>

### 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.<sup>20</sup> 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.<sup>21</sup> 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.<sup>22</sup> 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-

<sup>19</sup> 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.

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

<sup>21</sup> 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*).

<sup>22</sup> 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.<sup>23</sup>

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.<sup>24</sup>

#### 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].<sup>25</sup> 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.<sup>26</sup> 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.<sup>27</sup>

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

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**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*).<sup>28</sup> 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).<sup>29</sup> 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.<sup>30</sup>

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,

<sup>28</sup> 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.

<sup>29</sup> 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.

<sup>30</sup> 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”.<sup>31</sup> 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.<sup>32</sup> 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.<sup>33</sup>

<sup>31</sup> 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.

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

<sup>33</sup> 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.<sup>34</sup> 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.<sup>35</sup> 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.<sup>36</sup>

## 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

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

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

<sup>36</sup> 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.<sup>37</sup> 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.<sup>38</sup> 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.<sup>39</sup>

## 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.<sup>40</sup> 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.<sup>41</sup> 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-

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

<sup>38</sup> On Tibetan leather boxes see Anninos, "Tibetan Leather Boxes".

<sup>39</sup> 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.

<sup>40</sup> 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.

<sup>41</sup> 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.<sup>42</sup> 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.<sup>43</sup> 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.<sup>44</sup> 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.<sup>45</sup>

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

<sup>43</sup> 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.

<sup>44</sup> Richardson, *Ceremonies of the Lhasa Year*, especially 56-7.

<sup>45</sup> 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.<sup>46</sup> 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.<sup>47</sup>

## 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-

<sup>46</sup> 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.

<sup>47</sup> 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.<sup>48</sup> 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.<sup>49</sup> 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.<sup>50</sup> 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.<sup>51</sup>

## 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-

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<sup>48</sup> 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.

<sup>49</sup> La Rocca, *Warriors of the Himalayas*, 267-87.

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

<sup>51</sup> 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.<sup>52</sup> 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.<sup>53</sup> 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.<sup>54</sup> 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.<sup>55</sup> 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]).<sup>56</sup> 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.<sup>57</sup> 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].<sup>58</sup> 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

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

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

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

<sup>58</sup> 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.  
© The Metropolitan Museum of Art, Purchase, Kenneth and Vivian Lam Gift, and funds from various donors, 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.  
© The Metropolitan Museum of Art, Promised Gift of Laird Landmann and Kathleen Kinney,  
in celebration of the Museum's one hundred and fiftieth Anniversary, 2020



**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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