anthropozoologica

2026 • 61 • 3

ANTHROPOZOOLOGIE DU CERF ÉLAPHE. TÉMOIGNAGES ARCHÉOLOGIQUES, HISTORIQUES ET ETHNOGRAPHIQUES

Édité par Aline AVERBOUH & Marjan MASHKOUR

Harbingers of good fortune and eternel vitality: religious and secular representations and traditions in deer mythology in Tibet and the Himalayas

Amy HELLER

art. 61 (3) — Published on 13 March 2026
www.anthropozoologica.com

cnrs PUBLICATIONS SCIENTIFIQUES

MUSÉUM NAL HIST NATURELLE

Anthropozoologica est indexé dans / Anthropozoologica *is indexed in:*

– Social Sciences Citation Index
– Arts & Humanities Citation Index
– Current Contents – Social & Behavioral Sciences
– Current Contents – Arts & Humanities
– Zoological Record
– BIOSIS Previews
– Initial list de l'European Science Foundation (ESF)
– Norwegian Social Science Data Services (NSD)
– Research Bible

Anthropozoologica est distribué en version électronique par / Anthropozoologica *is distributed electronically by:*

– BioOne® (https://www.bioone.org)

Anthropozoologica est une revue en flux continu publiée par les Publications scientifiques du Muséum, Paris, avec le soutien du CNRS.
Anthropozoologica *is a fast track journal published by the Museum Science Press, Paris, with the support of the CNRS.*
Les Publications scientifiques du Muséum publient aussi / *The Museum Science Press also publish:* ***Adansonia***, ***Zoosystema***, ***Geodiversitas***, ***European Journal of Taxonomy***, ***Naturae***, ***Cryptogamie*** **sous-sections** ***Algologie***, ***Bryologie***, ***Mycologie***, ***Comptes Rendus Palevol***.

Diffusion – Publications scientifiques Muséum national d'Histoire naturelle
CP 41 – 57 rue Cuvier F-75231 Paris cedex 05 (France)
Tél. : 33 (0)1 40 79 48 05 / Fax : 33 (0)1 40 79 38 40
diff.pub@mnhn.fr / https://sciencepress.mnhn.fr

ISSN (imprimé/*print*) : 0761-3032 / ISSN (électronique/*electronic*) : 2107-0881

Harbingers of good fortune and eternel vitality: religious and secular representations and traditions in deer mythology in Tibet and the Himalayas

Amy HELLER
University of Bern, Institute of Science of Religion,
Lerchenweg 36, CH-3012 Bern (Switzerland)
and Centre de Recherche sur les Civilisations de l'Asie orientale (CRCAO),
équipe Tibet, Bhoutan et aire culturelle tibétaine,
CNRS, École pratique des hautes Études, Collège de France, Université Paris Cité,
chemin du Lignolet 38, CH-1260 Nyon (Switzerland)
amy.heller@unibe.ch

Submitted on 28 March 2024 | Accepted on 13 January 2026 | Published on 13 March 2026

Heller A. 2026. — Harbingers of good fortune and eternel vitality: religious and secular representations and traditions in deer mythology in Tibet and the Himalayas, *in* Averbouh A. & Mashkour M. (éds), Anthropozoologie du cerf élaphe. Témoignages archéologiques, historiques et ethnographiques. *Anthropozoologica* 61 (3): 37-47. https://doi.org/10.5252/anthropozoologica2026v61a3. http://anthropozoologica.com/61/3

ABSTRACT
The present essay refers to the presentation we gave in November 2022 at the Muséum national d'Histoire naturelle as part of the joint research unit BioArch – BioArchéologie, Interactions Sociétés Environnements seminar on "Les relations humains-cerfs (*Cervus*) dans leurs expressions matérielles et symboliques". It stems from our research project "Birds and Deer in the Himalayas and Tibet: from ancient Tibetan rituals and archeology to sustainable development" (2022-2023) at University of Bern, Switzerland. The focus of the project is the study of historical and literary sources in Tibetan language, both religious and secular, supplemented by traditions from oral histories according to local informants during observation *in situ* in Tibet and the Himalayas as well as accounts of modern hunting cultures. These Tibetan sources help understand the belief that deer –both *Cervus* and *Moschus*– are harbingers of good fortune to those who behold them. Furthermore, deer are linked with immortality and renewal of vitality for individual and collective welfare due to the annual spontaneous generation of the antlers for *Cervus* and the continuous growth of the canine teeth for *moschus* deer. The present essay will discuss these beliefs and modern accounts documented by Tibetan scholars as well as informants during my fieldwork among Sherpa in Nepal. The illustrations comprise pre-historic representations of deer found in Tibet and the Himalayas such as petroglyphs and archeological artefacts of the Tibetan empire which represent deer in gold and silver, as well as hunting scenes represented on painted coffins of the Tibetan imperial period (*c.* 750 CE). A zoological and ethological presentation of the different Himalayan deer opens this article so that the reader can better understand the nature of the links between them and human populations.

KEY WORDS
White-lipped deer,
red deer,
axis/spotted deer,
musk deer,
rituals,
pharmacology,
hunting,
Sherpa,
archaeological artefacts.

RÉSUMÉ
Présages de bonne fortune et de la vitalité éternelle : représentations et traditions religieuses et séculaires dans la mythologie des cerfs au Tibet et en Himalaya.
Cet article renvoie à la présentation que nous avons donnée en novembre 2022 au Muséum national d'Histoire naturelle dans le cadre du séminaire « Les relations humains-cerfs (*Cervus*) dans leurs expressions matérielles et symboliques » de l'unité mixte de recherche BioArch – BioArchéologie,

MOTS CLÉS
Cerf de Thorold / Cerf au museau blanc, cerf élaphe, cerf axis, cerf musqué, rituels, pharmacologie, chasse, Sherpa, matériel archéologique.

Interactions Sociétés Environnements. Elle est issue du projet de recherche *Birds and Deer in the Himalayas and Tibet: from ancient Tibetan rituals and archeology to sustainable development* (2022-2023) hébergé à l'université de Berne, Suisse. Ce projet cible l'étude des sources historiques et littéraires en langue tibétaine, aussi bien religieuses que laïques, complétée par les récits traditionnels fournis par des informateurs au Tibet et dans l'Himalaya ainsi que des narratifs de chasse à l'époque moderne. Ces sources tibétaines aident à cerner les croyances imputant au cerf et au daim musqué la capacité d'apporter la bonne fortune à ceux qui les voient et d'être synonymes de renouvellement, de vitalité et d'immortalité de par la repousse annuelle des bois du cerf et la croissance continue des canines des daims porte-musc. En complément des sources historiques et croyances, nous présentons ici des récits de chercheurs tibétains et d'informateurs Sherpa au Népal. Les illustrations montrent des représentations préhistoriques de cerfs en pétroglyphes et des objets archéologiques en or et en argent qui représentent des cerfs à l'époque de l'Empire tibétain, ainsi que des scènes de chasse figurées sur des cercueils peints de l'époque de l'Empire tibétain. Un résumé zoologique et éthologique des différentes espèces de cerfs de l'Himalaya et du Tibet est présenté en introduction afin que le lecteur puisse mieux comprendre la nature des liens entre les cerfs et les populations humaines.

INTRODUCTION

The essay seeks to present an overview of the species of cervids which may currently be observed in Tibet and the Himalayas, complemented by descriptions of the beliefs and traditions of their veneration, and by their visual representations which indicate changes over time in the territory of their habitat, such as the musk deer (*Moschus chrysogaster* Hodgson, 1839) no longer found as far north-west as Ladakh. In order to contextualize the traditions and beliefs according to Tibetan sources, a summary of zoological and ethological presentation of the different Himalayan deer opens this article so that the reader can better understand the nature of the links between them and human populations. Next there is a discussion of why deer are conceived as sacred in Tibet and the Himalayas. Tibetan literary references help understand the beliefs that the deer is harbinger of good fortune and that it is linked with immortality, hence the utilization of antlers and musk in medicinal preparations since antiquity. Hunting practices associated with these sacred creatures provide a complementary aspect of this study. This essay will discuss these beliefs and practices complemented by ancient representations of deer as found in Tibet and the Himalayas etched as rock carvings as well as archaeological artefacts.

Species of Deer in Tibet and the Himalayas

The present paper will focus especially on the white-lipped deer (*Cervus albirostris* Przewalski, 1883), axis deer (*Axis axis* (Erxleben, 1777)), and musk deer who have long had a strong symbolic role among Tibetan people as observed by the present writer in central Tibet and the Nepal Himalayas. Eleven deer species inhabit the Tibetan plateau according to the observations *in situ* by George B. Schaller (1998: 143), the eminent mammologist who performed years of extensive research in Nepal Himalayas, Tibet and China. Schaller indicates that small deer comprise three musk deer species, three muntjac species, tufted deer and roe deer. The large deer are the sambar (*Rusa unicolor* (Kerr, 1792)), the red deer (*Cervus elaphus wallichi* (G. Cuvier, 1823)) and the white-lipped deer, where the males all have antlers, while among the smaller species, rather than antlers, the male musk deer have long canine teeth which protrude like tusks, shoulder height *c.* 60 cm, with hind legs far longer than forelegs; the muntjac (*Muntiacus muntjak* (Zimmermann, 1780)) has both the prominent canine teeth and also very short antlers, *c.* 7-10 cm, lacking tines. Among the large species, sambar are not as prevalent in Tibet but instead are found in Bhutan, Nepal and foothills of the Himalayas in India (Timmins *et al*. 2015). The red deer live southeast of Lhasa at approximately 3650 masl along rolling hills with grass and low scrub (Schaller *et al.* 1996; Schaller 1998: 143). The red deer have brown pelage which turns more reddish-brown in summer. The white-lipped deer inhabit high hills and mountains covered with forests of rhododendron, willow, and other shrubs, and the meadows below and above timberline. They also occur in arid, treeless ranges, and the open habitat of alpine meadows from the vicinity of Lhasa eastward towards Tibetan plateau areas of both western Sichuan and southern Qinghai (Harris 1991: 354; Schaller 1998: 144) (Fig. 1). Their habitat ranges from 3600 to 5000 masl altitude. The white-lipped deer are very sure-footed due to their broad high hooves thus easily climb and jump on rocky mountainsides. Exceptionally, white-lipped deer were observed drinking in the Lhasa River, Tibet, altitude 3656 masl in December 2024 (Fig. 2).

Both the red deer and white-lipped deer have very long antlers with multiple tines reaching 71 cm in red deer and as much as 130 cm in white-lipped deer. It is noteworthy that the antlers of the white-lipped deer may range from dull grey-brown to white in color in the mature stage. As will be discussed below, it is precisely the deer with vast antlers, sometimes specifically antlers described as "white as conch shell", which is revered in Tibetan rituals.

In the region of Kathmandu, at 1400 masl, in the forest of Gokarna, the former royal hunting reserve, one may observe the Axis deer, also known as Chital, their Nepali name. With

Fig. 1. — Thorold's/ white-lipped deer (*Cervus Albirostris* Przewalski, 1883) in alpine meadow, Altitude *c*. 3700 masl, photo 2015. Photo credit: Unsplash, 2017, under CC0 1.0 Universal licence.

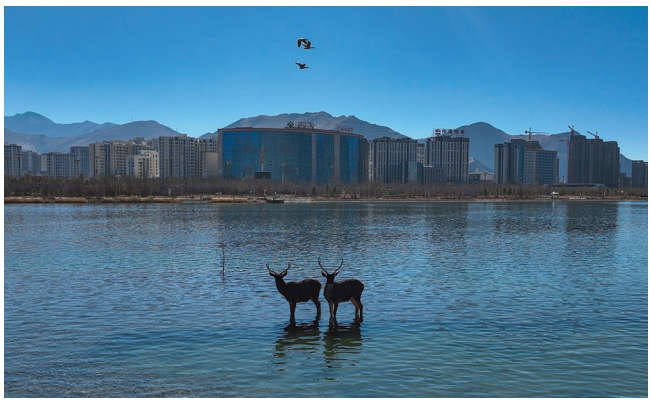

Fig. 2. — Thorold's/ white-lipped deer (*Cervus Albirostris* Przewalski, 1883) in Kyichu River, Lhasa, Tibet, altitude 3656 masl. Photo credit: 'Jigs med rdo rje, 26 December 2024.

height of 75-100 cm and weight of 45-85 kg, considerably smaller in size and weight than the red deer and white-lipped deer, the Axis deer have three-pointed antlers and white spots on their pelage (Fig. 3). They co-habit gaily with the local monkeys and roam freely over their forest terrain in Gokarna, which has been a walled reserve since 1862, covering 760 acres (Phintso Ongdi, pers. comm., January 2023 Kathmandu).

In Tibetan plateau regions of southern Qinghai, altitude 2600 to 3000 masl, musk deer inhabit forest and scrub (Harris 1991). Although protected by law and by custom, due to disapproval of hunting by Tibetan Buddhists, nonetheless, their population has dwindled. A traditional hunting practice using yak (*Bos grunniens* Linnaeus, 1766) horns has been described (Harris 1991: 350) however modern metal traps and snares are used by Salars, a Muslim non-Tibetan ethnic group who come periodically for the hunt as the sale of musk pods is very lucrative (Harris 1991: 356). Thus, in China the artificial breeding of musk deer for use in Chinese medicines has been practiced since *c.* 1960 (Ohtaishi & Gao 1990: 127). The Chinese developed a technique to extract the musk at regular intervals without killing the musk deer (Toffin 1988: 88). The study by Ohtaishi & Gao (1990) differentiates three species of *Moschus* in China: Siberian musk deer (*Moschus moschiferus* Linnaeus, 1758) which is not found in Tibet; forest musk deer (*Moschus berezovskii* Flerov, 1928), found in much of the Tibet Autonomous Region particularly near the northern flanks of the Himalayas, and Alpine musk deer (*Moschus chrysogaster*), of which three subspecies are found in the Tibet Autonomous region principally in southern Tibet along the extended eastern Himalayan highlands between Nepal and north-west Yunnan. (Ohtaishi & Gao 1990: 129; Huber 2020: 309) (Fig. 3).

In India and Nepal, there is requisite use of musk in Ayurvedic medical preparations. In 1972, the final year of legal export of musk in Nepal, 116 kg were exported, representing 1 100 000 US$, 8.7% of the total exportations of Nepal. This quantity of musk was equivalent to the contents of musk pods of 3000 adult male musk deer (Toffin 1988: 87). In Nepal, since the last quarter of the

Fig. 3. — Chital/spotted deer (*Axis Axis* (Erxleben, 1777)) in Gokarna Forest Reserve, Kathmandu, Nepal, altitude 1400 masl. Photo credit: Luigi Fieni, May 2023.

20th century, although one breeding farm has been opened in Godavari, near Kathmandu (Shresta 1998: 248). Instead of introducing farms for breeding musk deer, the policies are encouragement of population growth by creation of non-hunting zones as per the 1979 *Nepalese Parks Wildlife and Conservation Act* governing several national parks. In the Sagarmatha National Park of the Everest region, surface area of 1148 km^2, village median altitude 2845-3800 masl, all hunting and poaching is prohibited by law and strictly enforced[1]. Here the musk deer may be observed in their natural habitat, both on mountainsides eating lichen and birch bark, and in alpine meadows near the Sherpa villages. As will be discussed below, not only has the deer population grown but the local farmers and herders interact with the musk deer by sheltering them in non-roofed enclosures during winter, thus protecting them from potential predators such as the snow leopards (*Panthera uncia* (Schreber, 1775)) who roam in lower altitudes during winter. The villagers and the musk deer easily share space within their common habitat. Musk deer are known to be elusive, however their living conditions inside the Sagarmatha National Park are such that they do not shy from approach by humans (Fig. 4).

1. https://www.snp.gov.np/, last consultation on 4 February 2026.

Fig. 4. — Musk deer (*Moschus chrysogaster* Hodgson, 1839)) at rest in Sagarmatha National Park Phortse, Solokhumbu district, Nepal, altitude 3480 masl. Photo credit: Luigi Fieni.

THE SACRED QUALITIES OF DEER

The deer is revered in Tibet, as it is in much of Central Asia. The sacred qualities of deer are praised among the earliest Tibetan manuscripts now extant, mostly from the 9th and 10th centuries, a trove discovered in 1908 along the silk roads in Dunhuang (China) notably by the French orientalist and explorer Paul Pelliot. His collection of Tibetan manuscripts is now conserved in the Bibliothèque nationale de France (BnF) in Paris, catalogued and designated "Pelliot tibétain". Ancient Tibetan narratives describe the principal goddesses (Tibetan: *sman*) as "divine caretakers" of wild animals, particularly deer – these goddesses themselves sometimes appear as deer or aquatic birds (Dotson 2019: 2). Other ancient Tibetan narratives describe "deer of the gods" possessing antlers of conch and indestructible hooves (Stein 1971:502), also a "conch deer with crystal antlers" (Karmay & Nagano 2002: 37; Ramble 2015: 514). The Tibetan ritual for the "summoning of the quintessence of fortune" contains an origin myth with a primordial white deer as its principal character. Here the miraculous deer speaks human language and creates various ritual implements from different parts of its body which are needed in the ritual (Karmay 2002: x-xi; Ramble 2015: 521). The *g.yang* "quintessence of fortune" originated from this primordial deer captured by a mythical divine hunter (Berounsky 2014: 59; Ramble 2015: 514, 515). In these narratives, although it might seem that the crystal antlers directly refer to the *Cervus albirostris* (Prjevalski, 1883) which people had observed in their habitat, this is unlikely. Just as the deer disappeared from Ladakh and western Tibet where they were formerly abundant, we have little idea about any deer distributions 1000 years BP when some of the ideas in the Tibetan texts were already in circulation, long before being written in Tibetan language. The veneration is devoted to a mythical deer, not a real deer. For the stag, this veneration is related to the perception of the spontaneous, almost "miraculous" growth and subsequent shedding of the stag's antlers each year, coinciding with spring. The deer is thus a potent symbol of perpetual vitality, immortality, and rebirth. The graceful elegance of the running deer is a source of wonder and admiration, according to ancient Tibetan rituals which we will discuss below.

This is clearly expressed in the following verses from a Tibetan ritual, "The Deer with Vast Antlers", which has been tentatively dated 10th-11th century based on texts attributed to the 8th century (Blondeau & Karmay 1988)[2] which extolls the miracle of the stag's antlers which grow so long, then fall, and rapidly grow long again:

> "Their growth is extraordinary, different from all other creatures. This shows that the intelligence of the deer is superior to all other creatures;
> That the antlers grow again after they fall, it is the sign of votive offering (to the gods, who enjoy this offering);
> And that they re-grow rapidly, this shows that what has died before will resuscitate."
> The stag says: "My antlers balance on my head, my fur is like a luminous rainbow, my gallop: this is speed and ease of movement."

Later in the ritual the practitioner is instructed to offer the effigy of the deer as an emblem of the donor for the eventual favorable rebirth of the donor. (Blondeau & Karmay 1988: 131, 132, transl. A. Heller).

Indeed, the auspicious significance of the deer is amply demonstrated, notably the deer as provider of *g.yang*, good fortune (Karmay 2002: xi; Ramble 2015: 510, *passim*). Among the Dunhuang Tibetan manuscripts, Pelliot tibétain 1283 tells us that the deer is the *protegé* of the Phyva gods, who are the guarantors of *g.yang*:

> *Khyim dang ri la / pyva'i skyab mo / sha ba la / khal 'gel zhing sbyod.*
> (At the house [residence] and at the mountain, on the deer who is the protected one of the *pyva'i* [*phyva*], put the load.) (Heller 2018: 13, 14)

Traditional tales recount the kindness of the deer shown towards people in the past. The deer had provided people with the "support" of the soul-principle (*thugs*) and from this allusion one could speculate that the deer was used as a kind of psychopomp, guide of the soul, in funeral rituals (Berounsky 2014: 98). This explains why recent excavations of Tibetan tombs have documented the burial of deer antlers in the entry passage and antechamber of an 8th century Tibetan tomb (Institute of Archaeology *et al*. 2021: 92) as well as frequent representations of deer among the offerings excavated from the 8th century Tibetan tombs in Qinghai province. In this period of Tibetan history, it was believed necessary to equip the deceased with all necessities to prepare for rebirth in a terrestrial paradise – food, clothing, tableware, personal jewelry, etc. Numerous fabrics have the deer as

2. This chronological analysis made in 1988 remains tentative pending subsequent philological and historical analyses to support it.

Fig. 5. — Ceremonial Platter. Tibet, 8th or 9th century CE. Tooled silver, with foil gilding: diameter 29.2 cm; height 3 cm; thickness at rim .3-.35 cm; weight 935 g. Inscription in Tibetan language. Accession number: SF03.107. Shumei Culture Foundation, Shiga, Japan. Photo courtesy of the Shumei Culture Foundation.

principal motif, usually represented as a stag with two long, prominent antlers (Neumann 2017: 76, 77; Wang & Pritzker 2020: 121-125, 152, 153). In addition, among metal artefacts of this period, there is a large silver sculpture of a deer, with one antler, maximum height 83 cm. (Wang & Pritzker 2020: 154, 155). There is also a gilt silver platter with entwined trees of life and four pairs of stags, mountain goats (*Capra aegagrus* Erxleben, 1777), ibex (*Capra ibex* Linnaeus, 1758), as well as a mythological creature represented as a crowned deer lacking antlers, which will be illustrated and discussed in chapter "Rock carvings and archaeological artefacts" (Fig. 5).

By analogy to the deer as a symbol of vitality, in Tibetan pharmacology, the body of the deer is attributed healing properties. Deer antlers are found in the ingredients for five different medicinal preparations; the brains of deer and musk deer are cure diarrhoea. Deer blood stops haemorrhage of the womb and inhibits alcohol intoxication (Meyer & Parfionovich 1980: 71). Moreover, according to Tibetan nomads, the stag is also attributed the distinction of producing of a special substance which is highly esteemed for medicinal usage. This is reflected in the nomads' traditional belief that the male deer is the source of a highly prized

medicinal substance called *gi wang* which is produced in the brain of the stag and appears in the form of a precious agate (*gi gzi)* at the base of his antlers (Bellezza 2002: 357). To zoologists this is complete fantasy yet reflects to a degree human fascination that the deer's body can regularly and "spontaneously" produce antlers; by analogy, additional special elements could be produced by deer. On the one hand, the antlers emerging from the head of deer are regarded, justifiably, as a distinctive characteristic. The tradition that *gi wang* of the stag is potent medicine seems to parallel the ancient understanding that Tibetan musk was the highest quality musk in Asia with potential use in medicine as well as perfume. Due to the pristine forests where the musk deer ate the bark of birch, pine and many lichen, Tibetan musk was highly esteemed for its aroma and medical properties. According to the most ancient Tibetan medical manuscript now extant which is among the 9th to 10th century Tibetan manuscripts from Dunhuang, Tibetan musk is used for treating wounds. Tibetan musk is recommended to stop haemorrhage and cure swollen wounds, i.e. it is believed to have antiseptic properties (Akasoy & Yoeli-Tlalim 2007: 231; Yoeli-Tlalim 2013). In later Tibetan medical treatises, numerous preparations extoll the virtues of musk. Musk is an antidote for poisoning (Meyer & Parfionovich 1980: 79). As recently as the 20th century, the hoof and bones of the foot of the musk deer were ground to powder and mixed with water as a cure for fever, while the hairs of the musk deer were carried as amulets to avoid fever (Hildburgh 1909: 304). Sherpa informants in the Sagarmatha National Park, Nepal, in May 2023 described traditional memorial services performed one year after death, with fire rituals in which a musk deer hoof was burned to ensure that deceased was henceforth fully part of the past ancestors. Subsequently, the hoof of the barking deer was substituted for the musk deer hoof; at present, the ritual is performed by substitution of a hoof of a domestic pig. Due to the designation as a national park as of 1976, all hunting is forbidden within the territory of the park. However, the Sherpa officiant still recites the ritual incantation invoking the musk deer in relation to the ancestors as if, in the divine sphere, the perception of the modern-day substitute of the pig hoof was fully equivalent to the intended use of a musk deer.

A unique late 11th century Tibetan ritual manuscript has been analysed as a series of "post-mortem procedures with the express goal of bringing new life into the world following a death, and the use of various ritual structures and offerings to enable this" (Huber 2018: 77). The frequent representations of deer among the manuscript illustrations appears to reflect the Tibetan perception of their auspicious nature. Notably, one illustration shows a family: the stag with white antlers, the doe and a fawn, without any background illustration. The ancient ritual text in Tibetan language which accompanies this vignette presents significant and as yet unresolved philological problems of vocabulary. Although the initial translation of the text evoked their habitat, describing the stag's antlers with multiple tines, the female with keen sense of smell, and the fawn with beautiful gait (Bellezza 2013: 57-59), this passage has been subject to scrutiny and reinterpretation in a forthcoming translation (Huber & Bialek, in press). What is clear already is the great strength of the deer to carry its load. As mentioned above, in the Dunhuang manuscript Pelliot tibétain 1283, the deer is perceived as bearer of the "load" which may refer to deer as harbingers of good fortune, also possibly referring to the deer as guide to the soul of the deceased towards rebirth. The short caption had been translated to conclude with the milking of the doe (Bellezza 2013: 58), which is problematic in terms of domestication. In Tibetan language the term translated here for "milking" (*bzho*) in fact may also refer to a female nursing an infant. It is far more likely that the ritual text here refers to the doe nursing her fawn.

In this scene, the cohesion of the family is another element which may be associated with the auspicious qualities attributed to deer and musk deer. The two parents are present, in the foreground, almost of equal height and dimension. The doe is very slightly smaller, with the additional hairs at the top of the chest which may be observed in nursing season. With an offspring of one to three fawns per gestation, the doe is known to retain the young near her for as long as a year. According to Sherpa informants in May 2023, the female musk deer show similar behaviour, nursing their young several months while the family stays together, often not far from villages. According to the Sherpa informants, the terms for musk deer (*gla*, pronounced "la") and deity (*lha*, pronounced "lha") have almost the same pronunciation. This is another proof that the musk deer is holy. Its presence is perceived as an excellent omen for the village prosperity in general. The villagers in summer are happy to share their crops of buckwheat with the musk deer, while if mountain goats come to partake in the feast, they area chased away. The local custom of protection of the musk deer is reinforced, as if the animal which is spared from hunters adds to the collective vitality of all the inhabitants of the village. The vision of the deer and musk deer as sacred and auspicious is thus still present today.

HUNTING THE DEER

At present, due to climate change, the populations of deer and musk deer in Tibet and the Himalayas has dwindled in certain regions. Formerly the deer and musk deer were prevalent in the vast expanses and lakes of western and northern Tibet extending to modern Qinghai province. Notably, modern Ladakh –which was formerly part of western Tibet– is no longer the habitat for deer or musk deer, but their former population is documented by numerous ancient rock carvings (Fig. 6). The petroglyphs include musk deer as well as scenes of hunting stags (Vernier & Bruneau 2017: 321, 322). Among the earliest inscriptions in Tibetan language is a *c.* 8th century rock inscription in the Hunza valley (now Pakistan) which describes a large group hunt with a count of a hundred deer. This inscription has been described as a graffito, i.e. an isolated inscription, very brief, with less than twenty words in a "semi-literate" Tibetan language. While the interpretation of some words is problematic, the mention of a hunt of 100 deer is clear (Dotson 2013: 70).

Fig. 6. — Stag petroglyph, Domkhar, Ladakh, altitude 2450 masl. Zone 1, rock 9, surface 7, motif 1; dimensions: maximum width 33.5 cm, maximum heigth 43 cm. Photo credit: Laurianne Bruneau (2010: ill. iv-50), *Nakala. Himalayan Rock Art Database.* https://doi.org/10.34847/nkl.623atb4p

Linguistic analysis by Dotson indicates that the Tibetan inscription uses the verb "to encircle", which may possibly indicate a ring hunt, underlining the potential close relationship between strategic manoeuvers in warfare and the royal hunt (Dotson 2013: 68). It is clear however that Tibetan manuscripts from Dunhuang discuss chasing deer in order to hunt gazelle. These occurences are found in funerary texts such as Pelliot tibétain 1040 and Pelliot tibétain 1289 (Dotson 2013: 66). Dotson has even managed to identify several texts where the hunting of deer is paired with an interesting term for hunting yak by encircling the latter (Dotson 2013: 66). These literary references demonstrate the importance of such hunts. Visual documentation is provided by *c.* eighth century painted hunting scenes on coffin panels found in Qinghai tombs for Tibetan people which display archers, mounted and on foot, hunting both deer and yak together (Luo Shiping 2006: 69; Dotson 2013: 69) (Fig. 7). In one of the few historical records of hunting during the Tibetan empire, the *Old Tibetan Annals* account for the year 656-657 CE, describes an official deer hunt which is led by the chief minister of the government, indicative of its great social and political importance (Dotson 2013: 70).

MODERN HUNTING PRACTICES IN TIBET AND THE HIMALAYAS

In Nepal, Toffin studied the hunt of musk deer as practiced by the Tamang, a tribal population of about 500 000 people living in mountain villages at 1700-2200 masl principally in the Ganesh Himal region, speaking a Tibeto-birman language (Toffin 1988: 84). Their region is situated west of the Sagarmatha National Park, between the Langtang National Park and the Manaslu Conservation Area. Toffin's excellent and succinct account explains the religious context and the hunting practices of the Tamang:

> "The Tamang are Buddhists who live in close relationship with their environment, notably by gathering local herbs and plants to supplement their daily diet of cereals (traditionally barley and buckwheat). In contradiction to the Buddhist prohibition of hunting, the Tamang unabashedly hunt and kill their prey. They pride their reputation as experts in setting traps and snares and their talents as game-poachers. They avidly hunt mountain

goat (*chamois*), boar, bear, musk deer and many varieties of pheasant and partridge[3]."

Two elements influence their hunting customs. The Tamang believe that there is a correlation between the length of the canine teeth and the quantity of musk in the musk pod. They also believe that the fewer individual musk deer to be found in a given region, the higher will be the quality of the musk. The hunt consists of trapping the musk deer, then suffocation, as bloodshed during the kill is to be avoided for religious reasons. The hunt is seasonal in April-May, after the snow melt and in October, when the animals desert the high altitude forests due to snowfall. Groups of four to eight hunters form in perspective of a week long hunt at 3400-3500 masl, bringing food and blankets in the hope of sleeping in rock shelters or high altitude stables. To determine their target zone, the hunters search for the musk deer excrements, as the male deer maintain the same place regularly and do not cover the small pellets of their excrements. The trap is simple: the hunters weave together branches all around the zone, with openings are regular intervals. Each opening will have a wood "gate" with a nylon cord tied in a slip-knot. Once the animal passes the gate, the slip-knot goes around its neck and it is immobilized. Sometimes the hunters dig a small ditch nearby, covered with branches, and the musk deer fall into the ditch[4].

The hunters inspect the traps each morning. If the prey is there, the hunters immobilize the head against the ground in such a way that the animal will suffocate. Then the animal is dismembered. The average musk pod is 35-55 g, which in 1988 had market value of 350-700 US$, a high value for the Tamang Nepalese hunter (Toffin 1988; transl. A. Heller).

In Tibet, Sagant recorded accounts of veneration of deer and rituals deer hunt during the mid-20th century in eastern Tibet personally observed by Samten Karmay, a Tibetan scholar specialized in political and religious history of Tibet as well as non-Buddhist Bonpo rituals (Sagant 2021). Karmay described a youth of his village who had been riding in the mountainsides nearby. It was an autumn day and he reached the mountain pass far above the village where the altar of the local mountain deity presided over the pass. Just as he arrived at the pass, he saw there was a deer with vast antlers chewing grass beside the altar. Although the deer was fully aware of the human presence, he continued simply to pursue grazing the high grass. The young man turned the bridle of his horse and galloped to the village to seize his gun. Karmay remembers distinctively this account because the youth came to his family home to tell the tale. "That deer, I almost had it" he was saying. "Why, asked a neighbour, would you have killed it?" Reply: "Certainly not, Near the altar of our local mountain deity, how could I?" Then the youth became very quiet, embarrassed by his own revelation. Nonetheless, in Karmay's home, the neighbours were very excited. "To see a deer in the forest," said an old man, "it's already beautiful. But to see one come out of the forest to graze at the foot of the altar of the local god, this is really an exceptional event. This is an extremely auspicious sign." (Sagant 2021: 49; transl. A. Heller)

Samten Karmay also described local hunting custom of chasing deer which could last many days and cover a vast expanse of territory. At nightfall, the group made a fire and they recite one by one, shouting to the local mountain god to bring them power, vital force and to send them the desired prey, "A deer, a fat one. A stag with great antlers!"

The hunters move on horseback, one man stays behind with the horses, the others proceed on foot. Early dawn, the forest yields signs –the direction of the wind, the eagle flying above and the cry of the cuckoo– perceived as a sign that the local god will protect them. The cry of the cuckoo is the first crucial moment of the hunt for it shows that there is hope to succeed (Sagant 2021: 54). Once the deer's trace was perceived, the group would follow and follow, it was always moving and the hunt was a difficult pursuit. Perhaps lasting several days, then albeit losing the trace when the deer cross a torrent, then spending hours and maybe even days to browsing the high grass or moss on the rocks to only stop at nightfall, the group of hunters exhausted, famished. In autumn, however, it is the season of mating. Thus, there is a good likelihood that the deer will remain near the does beside a mountain lake. Here the deer will not flee the hunters, it will confront the hunters. To pursue the deer through the mountains, most often, the hunter will ride for days and days, even over several hundred kilometers, and in some years, the hunt will last as long as two months. There is one rule which must not be transgressed: as long as the deer is not slaughtered, one cannot stop. To stop would be transgressing their vow of courage and would make repercussion on the life of the hunters as well as affecting the immediate prosperity of the harvests of the community waiting in the villages. Thus, the success of the hunt is deemed crucial – it is likened to a ritual test where the local god sends the deer to the destined hunter who has shown his merits by proving his valor and prowess (Sagant 2021: 56, 57; transl. A. Heller).

ROCK CARVINGS AND ARCHAEOLOGICAL ARTEFACTS

The French archaeologist Laurianne Bruneau has photographed this elegantly carved rock carving of a stag located in Domkhar, Ladakh (Fig. 6). This is one of the major rock carving sites, it is west of Leh along the Indus on the old route to Kargil. The adult stag –whether red deer, sambar or white-lipped deer is not certain– has vast antlers and healthy strong body. The stag is running, his foreleg advanced. The impression is that this is a realistic carving made by people who were familiar with the animal's actual appearance, although the markings on the flank of the deer are stylized. It is represented on a rock where deer are no longer present in this habitat since centuries.

On the contrary, the creatures on the Tibetan gilt-silver ceremonial platter (Fig. 5) are all imaginary creatures (Mar-

3. Jest (1987: 232) explains that the Tamang prefer not to eat the meat of the musk deer which they find hard to digest and provokes diarrhea.

4. Jest (1987: 231, 232) provides two accounts of Tamang hunting musk deer, one of which includes ritual offerings to the local god of hunting. The description of the hunt and traps is very similar to Toffin 1988.

Fig. 7. — The Hunt of the Stag (detail), coffin Panel. Wood with pigments, 220 × 50 cm. Guolimo, Qinghai, China, 8th century. Photo credit: Tong Tao.

shak 1996: 80-82). There are four pairs of standing winged animals, whose heads indicate knowledge of the appearance of genuine animals. The long antlers reflect the stag, the crescent-horn recalls ibex, then two short-antler deer. Lastly there is a confronted pair with deer shaped heads with sort of crown above the ears, somewhat in a mushroom-shape. This "fantasy deer" creature is well documented in Sogdian or western Central Asian where this deerlike animal is considered an imaginary one-horn variant of the *djeiran*, or central Asian gazelle (*Procapra picticaudata* Hodgson, 1846) (Marshak 1986: plate 39/40, "Sogdian silver plate with *djeiran*", mid-7th century, Hermitage Museum S-218). Frequently represented on Sogdian silver from early 7th century, the motif migrated via the silk and musk routes to the Tibetan empire in central Asia and further east to China where this one-horn deerlike creature is known as the *qilin* (Heller 2021: 346). All eight standing animals are wearing a distinctive scarf with lappets horizontally in the gust of wind behind the animals. These scarves represent the banner known as *pativ*/*pativa*, symbol of royalty, worn by Sasanian rulers and subsequently integrated in the canon of royal portraits whether on coins or silver platters (Zhao & Nosch 2022: 211). By analogy, these scarves as neck ornaments are found integrated in representations of animals and birds which have royal connotations and which are represented in silver platters and in textiles woven in Sogdiana. Likewise the sprig of a blossom emerging from the mouth of the animals is part of the style of portraiture indicative of the high status attributed to the creatures. At the centre, a dignified winged centaur is holding two bunches of grapes. The group of imaginary hybrid creatures represented on this platter reflects the multiple influences in imagery of the sophisticated multi-cultural milieu of the Tibetan Empire in Central Asia during the seventh to early ninth century.

According to the remarks of the archaeologist Boris Marshak (1996), in his initial study of this plate of the Shumei Family Collection:

> "(…) the low relief design in the *champlevé technique* was popular with Iranian silversmiths during the Sasanian period as well as from 8th to 10th century, but the foil gilding and the rough and uneven hammering of the rim tend to indicate that it was made outside the lands of Iran and Central Asia. The centaur at center and the pairs of standing confronted winged animals are typical of the silverware of various Central Asian silver workshops but the specific motifs and their treatment here are distinctive." (Marshak 1996: 81)

Marshak concluded,

> "Due to the Tibetan inscriptions and the aesthetic and technical distinctions, this is a fine example of early Tibetan silver." (Marshak 1996)

The inscriptions on the reverse of the platter are scratched very faintly with three aligned circles. The inscriptions are understood to be personal name. Although their historic identification remains unknown, their names reflect clans known among the aristocracy in Tibetan historical records (Van der Kuijp 1996: 82, 83; Heller 2013: 268-272).

The winged centaur with grapes in hand is a reminder that the Tibetans were familiar with wine, and with the ritual protocol of the Iranian wine banquet. North of Tibet, in Turfan the grape bowers were already famous in this period. This is of course a further emphasis on the many multi-cultural influences which are reflected by this silver platter.

Hunting as a theme on painted wooden Tibetan coffin panels

Several painted coffins of this period excavated from tombs in the Qinghai province, attributed to aristocracy and royalty of the Tibetan and Tuyuhun kingdoms of the late seventh to mid-eighth century, typically illustrate audiences of ambassadors, banquet scenes, ritual scenes and hunting scenes (Heller 2016:

178-181). A photograph by archaeologist Tong Tao (Fig. 7) shows a portion of a painted coffin panel with several scenes to allow appreciation of the group of mounted archers who direct their bows towards the running stags, in the midst of an idyllic plain surrounded by small hills, whose green paint indicates the perfect green grass pasture lands of their habitat. The mounted hunter chases the stags in this coffin panel, while another Tibet coffin panel shows mounted archers circling two yaks and a single rider chasing three deer (Heller 2016: 179, fig. 9).

CONCLUSIONS

The text we have just presented is far from exhaustive. The main aim was to provide an overview of the deer species that can be seen in Tibet and the Himalayas, and the symbolic roles that have been or are still attributed to them. The myths and rituals extoll the role of the deer and the musk deer in the quest for immortality. The descriptions of hunting in the most ancient period as well as the 20th century reveal the social cohesion among the hunters both of deer and musk deer, as well as a glimpse of the contradiction in their paradoxical situation of hunting in disregard of the religious restrictions of Buddhism as well as the legal restrictions on hunting imposed by the creation of the national park status which creates a wildlife preserve. The archaeological artefacts allow us to appreciate the sacred role attributed to deer as well as the representation of ancient Tibetan hunting customs. Prior to the introduction of Buddhism, during the Tibetan empire in Central Asia, foreign matrimonial alliances, sumptuous banquets, and elaborate royal hunts, were all among the rituals of protocol of the court. The royal hunt of the stag, for example, would provide ample food for the banquets but the hunt in itself was organized as part of the seasonal political protocols to promote social cohesion of the court and the aristocracy (Pritzker 2017: 120). It is thus hoped that this discussion of the mythology and representations of the deer in Tibet and the Himalayas affords an opportunity towards better understanding of how humans and cervids cohabit today and how the reverence of deer has sustained their interaction within their common habitat over the course of time.

Acknowledgements
My thanks to Prof. Karenina Kollmar-Paulenz, Institut für Religionswissenschaft, University of Bern, for accepting my research project supported by the David Snellgrove and Tadeusz Skorupski Fund awarded to me by the Institute of Buddhist Studies, Tring (UK), to Professors Anne-Marie Blondeau, Toni Huber, Samten Karmay and Shawo Khacham for their insightful criticism, to Luigi Fieni, photographer, who accompanied the field research accomplished in Nepal thanks to Department of National Parks & wildlife conservation (permit no. 079/082/222) and Sagarmatha National Park office (permit no. 079/82/294). I wish to acknowledge support and criticism by Aline Averbouh and Marjan Mashkour, who welcomed a Tibetologist and art historian into their scientific cohort at the Muséum national d'Histoire naturelle, Paris.

REFERENCES

Akasoy A. & Yoeli-Tlalim R. 2007. — Along the musk routes: exchanges between Tibet and the Islamic World. *Asian Medicine* 3: 231. https://doi.org/10.1163/157342008X307857
Bellezza J. 2002. — Gods, hunting and society: animals in the ancient cave paintings of Celestial Lake in northern Tibet. *East and West* 52 (1/4): 347-396.
Bellezza J. 2013. — *Death and Beyond in Ancient Tibet*. Österreichischen Akademie der Wissenschaften, Wien, 293 p.
Berounsky D. 2014. — Tibetan myths on "good fortune" (*phya*) and "well-being" (*g.yang*). *Mongolo-Tibetica-Pragensia* 7 (2): 54-77.
Blondeau A.-M. & Karmay S.G. 1988. — Le cerf à la vaste ramure : en guise d'introduction, *in* Blondeau A.-M. & Schipper K. (eds), *Essais sur le rituel*. Vol. I. *Colloque du centenaire de la section des Sciences religieuses de l'École pratique des hautes Études*. Peeters, Louvain, Paris: 119-146. (Bibliothèque de l'École des hautes Études en Sciences religieuses; XCII).
Bruneau L. 2010. — Le Ladakh (Jammu & Cachemire, Inde) de l'âge du Bronze à l'introduction du Bouddhisme : une étude de l'art rupestre. Thèse de doctorat en Archéologie et Préhistoire, Université Paris 1 Panthéon-Sorbonne, 4 tomes, 1114 p. https://hal.science/tel-03892542v1, last consultation on15 January 2026.
Dotson B. 2013. — The princess and the yak: hunt as narrative trope and historical reality in Early Tibet, *in* Dotson B., Iwao K. & Takeuchi T. (eds), *Scribes, Texts, and Rituals in Early Tibet and Dunhuang*. Reichert-Verlag, Wiesbaden: 61-86.
Dotson B. 2019. — Hunting for fortune. Wild animals, goddesses and the play of perspectives in early Tibetan dice divination, *in* Barstow G. (ed.), Animals in the religion and culture of the Tibetan Plateau. *Études mongoles et sibériennes, centrasiatiques et tibétaines* 50: 1-28. https://doi.org/10.4000/emscat.3747
Harris R.B. 1991. — Conservation prospects for Musk Deer and other wildlife in southern Qinghai, China. *Mountain Research and Development* 11 (4): 353-358. https://doi.org/10.2307/3673718
Heller A. 2013. — Tibetan inscriptions on ancient silver and gold vessels and artefacts, *in* Hill N. (ed.), New Horizons in Bon Studies. *Journal of the International Association for Bon Research* 1: 259-290. https://urlr.me/mCjPhd, last consultation on 15 January 2026
Heller A. 2016. — Observations on painted coffin panels of the Tibetan Empire. *Zentralasiatische Studien* 45: 147-202.
Heller A. 2018. — Preliminary remarks on birds and deer in Shangshung and Early Tibet, *in* Thar Tongkor T. & Sharshon T.D. (eds), *Ancient Civilisation of the Tibetan Plateau, Proceedings of the First Beijing International Conference on Shang Shung Cultural Studies*. Vol. 1. Qinghai Minzu Press, Xining: 3-37.
Heller A. 2021. — Research on the role of birds and deer in Early Tibetan rituals, *in* Lange D., Ptackova J., Wettstein M. & Wulff M. (eds), *Crossing Boundaries Tibetan Studies Unlimited.* Academia Publishing House, Prague: 343-352.
Hildburgh W.L. 1909. — Notes on some Tibetan and Bhutia amulets and folk-medicines, and a few Nepalese amulets. *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 39: 394. https://doi.org/10.2307/2843211
Huber T. 2018. — From death to new life: an 11th-12th-century cycle of existence from southernmost Tibet, *in* Hazod G. & Shen W. (eds), *Tibetan Genealogies: Studies in Memoriam of Guge Tsering Gyalpo (1961-2015)*. China Tibetology Publishing House, Beijing: 251-349.
Huber T. 2020. — *Source of Life. Revitalisation Rites and Bon Shamans in Bhutan and the Eastern Himalayas*. Austrian Academy of Sciences Press, 2 vol., 1142 p. (Denkschriften der philosophisch-historischen Klasse; 518) (Veröffentlichungen zur Sozialanthropologie; 24). https://doi.org/10.1553/0x003abbcd
Huber T. & Bialek J. (in press). — *Translation and Transliteration of the Mokotoff Collection Manuscript:* Ste'u *and* Sha *slungs*. Hamburg University Centre for Manuscript Cultures.

Institute of Archaeology, Chinese Academy of Social Sciences; Museum of Ethnology, Haixi Mongol and Tibetan Autonomous Prefecture; Bureau of Culture, Sports, Tourism, Radio, Film, and Television, Wulan County 2021. — The excavation of tomb M1 in Quangou cemetery, Wulan County, Qinghai. *Chinese Archaeology* 21 (1): 91-106. https://doi.org/10.1515/char-2021-0006

Jest C. 1987. — Valeurs d'échange en Himalaya et au Tibet : l'ambre et le musc, *in* Koechlin B., Sigaut F., Thomas J.M.C. & Toffin G. (eds), *De la voûte céleste au terroir, du jardin au foyer. Mélanges offerts à Lucien Bernot.* Éditions de l'École des hautes Études en Sciences sociales, Paris: 227-238.

Karmay S.G. 2002. — Introduction, *in* Karmay S.G. & Nagano Y. (eds), *The Call of the Blue Cuckoo. An Anthology of Nine Bonpo Texts on Myths and Rituals*. National Museum of Ethnology, Osaka: vii-xvii.

Karmay S.G. & Nagano Y. (eds) 2002. — *The Call of the Blue Cuckoo. An Anthology of Nine Bonpo Texts on Myths and Rituals*. Vajra Publications, Katmandou, 247 p.

Luo Shiping 2006. — A research about the drawing on the coffin board of Tubo located at Guolimu, Haixi, Qinghai Province. *Wenwu* 7: 68-82.

Marshak B.I. 1986. — *Silverschätze des Orients*. VEB E.A. Seemann Verlag, Leipzig, 438 p.

Marshak B.I. 1996. — Plate, *in* O'Neill J.P. (ed.), *Ancient Art from the Shumei Family Collection*. Metropolitan Museum of Art, New York: 80-83.

Meyer F. & Parfionovich Y. 1980. — *Tibetan Medical Paintings*. Serindia Publications, London, 2 vol., 170 + 336 p.

Neumann H. 2017. —Splendours in silk. *Hali* 192: 76-81.

Ohtaishi N. & Gao Y. 1990. — A review of the distribution of all species of deer (Tragulidae, Moschidae and Cervidae) in China. *Mammal Review* 20 (2-3): 125-144. https://doi.org/10.1111/j.1365-2907.1990.tb00108.x

Pritzker D. 2017. — Allegories of kingship. A preliminary study of a Western Central Asian gold ewer in the royal court of Tibet, *in* Allinger E., Grenet F., Jahoda C., Lang M.-K. & Vergati A. (eds), *Interaction in the Himalayas and Central Asia: Processes of Transfer, Translation and Transformation in Art, Archaeology, Religion and Polity*. Verlag der Österreichischen Akademie der Wissenschaften, Wien: 105-126.

Ramble C. 2015. — The deer as structuring principle in certain Bonpo rituals: a comparison of three texts for the acquisition of good fortune (*g.yang*), *in* Mc Allister P., Scherrer-Schaub C. & † Krasser H. (eds), *Cultural Flows Across the Western Himalaya.* Verlag der Österreichischen Akademie der Wissenschaften, Wien: 499-528.

Sagant P. 2021. — Les chasses rituelles : éducation des enfants et transgression d'interdit, *in* Krauskopff G. (ed.), Mobilité, Territoires et pouvoirs en Himalaya : pour Philippe Sagant. *Ateliers d'Anthropologie* 49: 45-73. [posthumous publication]. https://doi.org/10.4000/ateliers.14409

Schaller G.B. 1998. — *Wildlife of the Tibetan Steppe*. University of Chicago Press, Chicago, 384 p.

Schaller G.B., Liu W. & Wang X. 1996. — Status of Tibet red deer. *Oryx* 30 (4): 269-274. https://doi.org/10.1017/S0030605300021761

Shresta M.N. 1998. — Animal welfare in the musk deer. *Applied Animal Behaviour Science* 59 (1-3): 245-250. https://doi.org/10.1016/S0168-1591(98)00139-7

Stein R.A. 1971. — Du récit au rituel dans les documents tibétains de Touen-houang, *in* Macdonald A. (ed.), *Études tibétaines dédiées à la mémoire de Marcelle Lalou.* Librairie d'Amérique et d'Orient Maisonneuve, Paris: 479-547.

Timmins R., Kawanishi K., Giman B., Lynam A., Chan B., Steinmetz R., Sagar Baral H. & Samba Kumar N. 2015. — *Rusa unicolor* (errata version published in 2015). *The IUCN Red List of Threatened Species* 2015: e.T41790A85628124. https://doi.org/10.2305/IUCN.UK.2015-2.RLTS.T41790A22156247.en

Toffin G. 1988. — Chasse interdite, *in* Percot M. (ed.), Himalayas. *Autrement* hors série 28: 82-90.

Van der Kuijp L. 1996. — Tibetan inscriptions, *in* O'Neill J.P. (ed.), *Ancient Art from the Shumei Family Collection*. Metropolitan Museum of Art, New York: 82-83.

Vernier M. & Bruneau L. 2017. — Evidence of human presence in the Himalayan mountains: new lnsights from petroglyphs, *in* Prins H.H.T. & Namgail T. (eds), *Bird Migration Across the Himalayas: Wetland Functioning Amidst Mountains and Glaciers*. Cambridge University Press, Cambridge: 319-332. https://doi.org/10.1017/9781316335420.024

Wang X. & Pritzker D. 2020. — *Cultural Exchange Along the Silk Road: Masterpieces of the Tubo Period (7th-9th Century)*. [Dunhuang Academy and Pritzker Art Collaborative]. China Tibetology Publishing House, Beijing, 350 p.

Yoeli-Tlalim R. 2013. — Central Asian mélange: Early Tibetan medicine from Dunhuang, *in* Dotson B., Iwao K. & Takeuchi T. (eds), *Scribes, Texts, and Rituals in Early Tibet and Dunhuang.* Reichert Verlag, Wiesbaden: 53-60.

Zhao F. & Nosch M.-L. (eds) 2022. — *Textiles and Clothing Along the Silk Roads.* China National Silk Museum, Hangzhou; UNESCO, Paris, 413 p. (Thematic Discussion of the Cultural Exchanges Along the Silk Roads; 4). https://doi.org/10.54678/JDZP2879

Submitted on 28 March 2024;
accepted on 13 January 2026;
published on 13 March 2026.