

LINGUISTIC TERMS DESCRIBING DIFFERENT TYPES OF ARMOUR IN PERSIAN MANUSCRIPTS

TERMINOLOGÍA SOBRE DIFERENTES TIPOS DE ARMAMENTO DEFENSIVO EN MANUSCRITOS PERSAS

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MANOUCHEHR MOSHTAGH KHORASANI*

ABSTRACT - RESUMEN

The present article investigates different terms describing armour and its diverse typology in Persian martial tradition taken from a selected number of 47 dated Persian manuscripts from the 10th to the 19th centuries C.E. Both human and animal armour used in battlefields are described.

El presente artículo describe, a partir de 47 manuscritos persas datados entre el siglo X y el siglo XIX d.C., los diversos términos que han designado las armaduras y sus diversas tipologías en la tradición marcial persa, tanto en lo que se refiere a armaduras para hombres como aquellas elaboradas para los animales de batalla.

KEYWORDS - PALABRAS CLAVE

Armour; Armguard; Shin Protector; Thigh Protector; Helmet; Mail Armour; Horse Armour; Elephant armour.

Armadura; Guardabrazo; Grebas; Musleras; Casco; Cota de Malla; Armadura de Calballo; Armadura de Elefante.

1. INTRODUCTION

Persian manuscripts often mention different types of armour worn by warriors on the battlefield. To the readers of epic stories, historical books and manuscripts, and poems, these terms present an enigma as without a thorough understanding of the shape and function of different types of armour and their proper historical usage, readers will not be able to understand the texts properly. The goal of this article is to provide an accurate analysis of terms describing different types of armour that appear in Persian manuscripts. Further, the article provides the readers with a detailed description of different types of armour so that the old texts can be understood easier. In this article, only the period of the New Persian language is considered. Forty seven Persian manuscripts ranging from the 10th to the 19th centuries C.E.

* Dr. Manouchehr Moshtagh Khorasani. M. Moshtagh Consulting. 60230 Frankfurt a.M. - Telefon: 0049-172-6783352 - Email: manouchehr@moshtaghkhorasani.com - Internet: www.moshtaghkhorasani.com - www.arms-and-armor-from-iran.de

were consulted to set up a reliable linguistic base for the study of different types of arms and armour. These manuscripts include epics such as the 10th-century epic *Šāhnāme* [Book of Kings] by Ferdōsi, anthologies such as the 11th-century anthology *Divān-e Manuĉehri Dāmqaṇi* [Anthology of Manuĉehri Dāmqaṇi] by Manuĉehri Dāmqaṇi, the travel accounts such as the 11th-century *Safarnāme-ye Nāser Xosrō* [Travel Accounts of Nāser Xosrō] by Nāser Xosrō, treatises on war and strategy such as the 12-century C.E. manuscript *Ādāb al-Harb va al-Šojā-e* [The Customs of War and Bravery] by Mobārak Šāh Faxr-e Modabbar, heroic stories such as the 15th-century manuscript *Zafarnāme* by Yazdi, historical manuscripts such as the 17th-century manuscript *Tārix-e Ālam Ārāye Abbāsi* [History of Abbāsi] by Eskandar Beig Torkamān, geography and crafts books such as the 19th-century *Jogrāfiyā-ye Esfahān* [Geography of Isfahān] by Tahvildār Esfahāni, and period lexicons such as the 19th-century lexicon *Farhang-e Jahānigiri* [The Lexicon of Jahānigiri] by Anjavi Širāzi. It is important to note that with armour only body armour, meaning the armour that protects the body (human and animal), is taken into consideration and not defensive weapons such as shields that could also be used as offensive weapons if the need arose.

Generally, one can divide different types of armour into two major categories: human armour and animal armour (armour for animals carrying the warriors such as horses, elephants, and camels).¹ The article first deals with the human armour and its different types as presented in the Persian manuscripts such as *bāzuband* بازوبند, *ĉāhrāyne* چهارآینه, *garibān* گریبان, *jōšan* جوشن, *kolāhxud* کلاهخود, *lebās-e razm* لباس رزم, *namadpuš* نمدپوش, *qazāgand* قزاگند, *rānband* رانبند, *sāqedin* ساقدين, *tanure* تنوره, *xaftān* خفتان, *zereh* زره, *zerehkolāh* زرهکلاه, and *salih* سليح. The second part of the article deals with different types of animal armour such as *āyne* آينه and *pišband* پيشبند, *bargostovān* برگستوان, and *sineband* سينه‌بند. The last part of the article provides a conclusion.

2. HUMAN ARMOUR

Human armour found in the Persian manuscripts can be classified into the following categories: 2.1 *bāzuband* بازوبند, 2.2 *ĉāhrāyne* چهارآينه, 2.3 *garibān* گریبان, 2.4 *jōšan* جوشن, 2.5 *kolāhxud* کلاه خود, 2.6 *lebās-e razm* لباس رزم, 2.7 *namadpuš* نمدپوش, 2.8 *qazāgand* قزاگند, 2.9 *rānband* رانبند, 2.10 *sāqedin* ساقدين, 2.11 *tanure* تنوره, 2.12 *xaftān* خفتان, 2.13 *zereh* زره, 2.14 *zerehkolāh* زرهکلاه, and 2.15 *salih* سليح. Within each classification, there are synonyms used to describe the same type of armour and also varieties of that armour. These will be explained in the following. The general term for armour maker is *zarrād* زراد, see the 12-century C.E. manuscript *Ādāb al-Harb va al-Šojā-e* (Mobārak Šāh Faxr-e Modabbar, 1967/1346:423) and an arsenal or armoury was called *zarrādxāne* زرادخانه, see the 11th-century anthology *Divān-e Manuĉehri Dāmqaṇi* (Manuĉehri Dāmqaṇi, 1984/1363:22).¹

2.1 BĀZUBAND بازوبند

A pair of *bāzuband* بازوبند was used in Iran for protecting the forearms during combat. A *bāzuband* بازوبند has a main steel plate covering the whole forearm, normally with one or two

¹ For the usage of the term *zarrādxāne* زرادخانه in other Persian manuscripts, see the 12th-century manuscript *Ādāb al-Harb va al-Šojā-e* (Mobārak Šāh Faxr-e Modabbar, 1967/1346:20), the 13th-century anthology *Masnavi Ma'navi* (Molavi, 2006/1385:35), the 15th-century manuscript *Zafarnāme* (Yazdi, 1957/1336a:297), the 14th-century manuscript *Tārix-e Firuzšāhi* (Afif, 2007/1385:338), and the 15th-century manuscript *Dārābnāme* (Beiqami, 2002/1381:351; vol.2).

smaller plates to encircle and close around the wrist, and a textile gauntlet reinforced with mail for protecting the hands (see Kobylinsky, 2000:69). There are two ways of holding the steel plates of *bāzuband* بازوبند together: either they are held together by mail or by a hinge with a pin (see Kobylinsky, 2000:69). Persian manuscripts such as the Safavid-period manuscript *Dāstān Hosseyn Kord-e Šabestari* (*Dāstān Hosseyn Kord-e Šabestari*, 2003/1382:168), the manuscript *Romuz-e Hamze* recollected in 15th-century (1940/1359 Hegira: 703), and *Širuye Nāmdār* (2005/1384:328) report on the usage of this type of armour. Synonyms for the term *bāzuband* بازوبند are the lexemes *sāedband* ساعدبند (see the manuscript *Eskandarnāme* by Hakim, unspecified date: 551 that is based on 12th-century tales and recollected in the 17th century)², *sā'edin* ساعدین (see the 11th-century manuscript *Samak Ayyār*, al-Kāteb al-Rajāni, 2004/1383:391)³, and *sāqe* ساقه (see the 14th century manuscript *Tārix-e Sistān*, 1992/1381:434)⁴. Persian manuscripts sometimes describe the decorations used on armguards such as the expressions *sāedband-e morassa* 'مرصع ساعدبند' (bejeweled armguard) (see the 19th-century manuscript *Rostam al Tavārix*, Āsef, 2003/1382:415), *sā'edin zarandud* ساعدین زراندود (gilded armguard) (see the 15th-century manuscript *Dārābnāme*, Beiqami, 2002/1381:602; vol.1), and *sāedin zarrin* ساعدین زرین (lit. golden armguard; an armguard decorated with gold-inlaying or overlaying) (see the 14th-century manuscript *Majma' al-Ansāb, Šabānkāre'i*, 2002/1381:278).⁵



Figure 1. A *bāzuband* بازوبند made of crucible steel plates attributed to the Safavid period (1502-1722 C.E.) from the Military Museum of Tehran (Courtesy of the Military Museum of Tehran).

² For the usage of the term *sāedband* ساعدبند in other manuscripts see *Romuz-e Hamze*, (1940/1359 Hegira:52) recollected in 15th-century, and the 19th-century manuscript *Rostam al Tavārix*, Āsef, 2003/1382:78). This term is also spelt as *دنبندعاص*, see the manuscript *Romuz-e Hamze* (1940/1359 Hegira:380).

³ For the usage of the term *sā'edin* ساعدین in other Persian manuscripts, see *Dārābnāme-ye Tarsusi* (Tarsusi, 1977/2536:360, vol. 1) that is based on old Pahlavi texts, the 12-century manuscript *Ādāb al-Harb va al-Šojā-e* (Mobārak Šāh Faxr-e Modabbar, 1967/1346:147), and the 15th-century manuscript *Dārābnāme* (Beiqami, 2002/1381:293; vol.1).

⁴ Note that this term is also used as shin protector.

⁵ For examples of Persian *bāzuband* بازوبند that are kept in Iranian museums see Moshtagh Khorasani (2006:684, cat. 380 and cat. 381; 685, cat. 382).

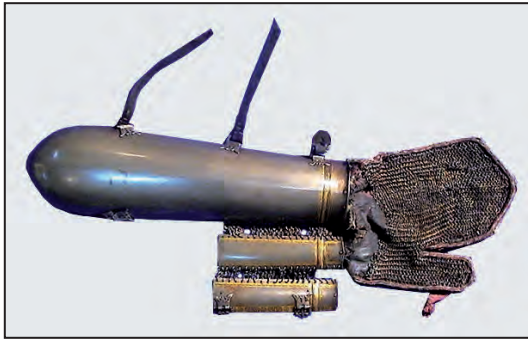


Figure 2. Another *bāzuband* بازوبند made of crucible steel plates attributed to the Safavid period (1502-1722 C.E.) from the Military Museum of Tehran (Courtesy of the Military Museum of Tehran).

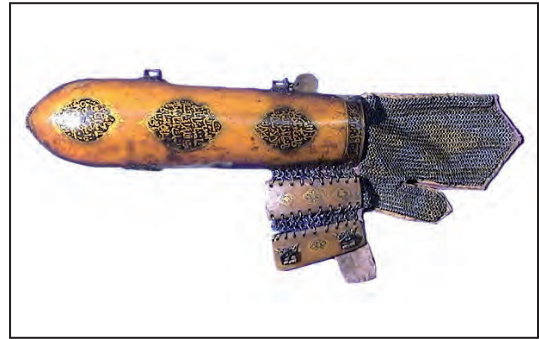


Figure 3. A *bāzuband* بازوبند made of rhinoceros hide plates attributed to the Zand period (1750-1794 C.E.) from the Military Museum of Tehran (Courtesy of the Military Museum of Tehran).



Figure 4. A miniature from a 15th-century manuscript of the *Šāhnāme* shows Rostam fighting Alkus the Turanian champion (Courtesy of Malek Library).



Figure 5. A miniature from a 16th-century manuscript of the *Šāhnāme* shows Rostam fighting the Turks (Courtesy of Sepahsālār Library).

2.2 ČĀHRĀYNE چهار آینه

The armour *čāhrāyne* چهار آینه means literally «four mirrors». It is a type of armour that consisted of four steel plates, two for protecting the chest and back areas (breast- and back-plates) and two for protecting the sides (side plates) (see Grancsay, 1957:245). A single steel/iron plate serving as a piece of *čāhrāyne* چهار آینه armour was called *āyne* آینه (see the *Digital Lexicon of Dehxodā*). The front plate was called *sineband* سینه‌بند (see the manuscript *Romuz-e Hamze*, 1940/1359 Hegira recollected in 15th-century). For the expression *sineband-e fulād* سینه‌بند فولاد (front plate made of steel) see *Šāhnāme-ye Nāderi* (Nāderi, 1968/1346:54). The steel plates are attached using leather straps, buckles and clasps (see Zeller and Rohrer, 1955:35). The side plates were called *baqalband* بغل‌بند (see the Safavid-period manuscript *Dāstān Hosseyn Kord-e Šabestari*, 2003/1382:30) or *baqaltāq* بغلطاق or *baqaltāq* بغلطاق (see the 13th-century anthology *Bustān*, Sa'di, 2005/1383:235, the 12-century manuscript *Ādāb al-Harb va*

al-Šojā-e, Mobārak Šāh Faxr-e Modabbar, 1967/1346:467), and the 13th-century anthology *Masnavi Ma'navi* (Molavi, 2006/1385:368). At times Persian manuscripts also define where a piece of *čāhrāyne* چهرآینه armour was made such as the expression *āyne-ye čini* آینه چینی (the steel mirror/plate from China/Turkestan [serving as a piece of armour]) (*Dārābnāme-ye Tarsusi* based on old Pahlavi texts, Tarsusi, 1977/2536, vol. 1). Warriors armed with a *čāhrāyne* چهرآینه were called *āynewuš* آینهپوش (see the 18th-century manuscript *Tārix-e Ahmad Šāhi*, al-Jāmi, 2001/1379:257). There are some types of *čāhrāyne* چهرآینه with no leather straps; in this case the plates were pinned together (like hinges), forming a more rigid construction. In some types of *čāhrāyne* چهرآینه the front plate is made of two pieces, so the armour could be folded like a jacket (see Kobylinsky (2000:68). There are different methods of decoration on steel plates, gold and silver in- and overlays, chiseling and engraving (Kobylinsky, 2000:68). In later models made for the tourist market in the 19th century the decorations were etched onto



Figure 6. A *čāhrāyne* made of crucible steel plates with gold-overlaid inscriptions attributed to the Safavid period (1502-1722 C.E.) from the Military Museum of Tehran (Courtesy of the Military Museum of Tehran).

the steel surface. The armour *čāhrāyne* چهارآینه was usually worn on top of the *zereh* زره (mail armour). At times the Persian manuscripts reveal the material a *čāhrāyne* چهارآینه was made of such as *čāhrāyne-ye fulād* چهارآینه فولاد in the 19th-century manuscript *Rostam al Tavārix* (Āsef, 2003/1382:39). The craftsman who makes a *čāhrāyne* چهارآینه was called a *čāhrāynesāz* چهارآینه‌ساز see *Jogrāfiyā-ye Esfahān* (Tahvildār Esfahāni, 1964/1342:109).⁶



Figure 7. Another *čāhrāyne* made of crucible steel plates with gold-overlaid inscriptions attributed to the Safavid period (1502-1722 C.E.) from the Military Museum of Tehran (Courtesy of the Military Museum of Tehran).

⁶ For the usage of the term *čāhrāyne* چهارآینه in Persian manuscripts see the manuscript *Eskandarnāme* (Hakim, unspecified date:557) that is based on 12th-century tales and recollected in the 17th century and the manuscript *Romuz-e Hamze* (1940/1359 Hegira:52) recollected in 15th-century. For examples of *čāhrāyne* چهارآینه that are kept in Iranian museums see Moshtagh Khorasani (2006:701-715, cat. 396-406).



Figure 8. Another *čāhrāyne* made of crucible steel plates with gold-overlaid inscriptions attributed to the Safavid period (1502-1722 C.E.) from the Military Museum of Bandar Anzali (Courtesy of the Military Museum of Bandar Anzali).

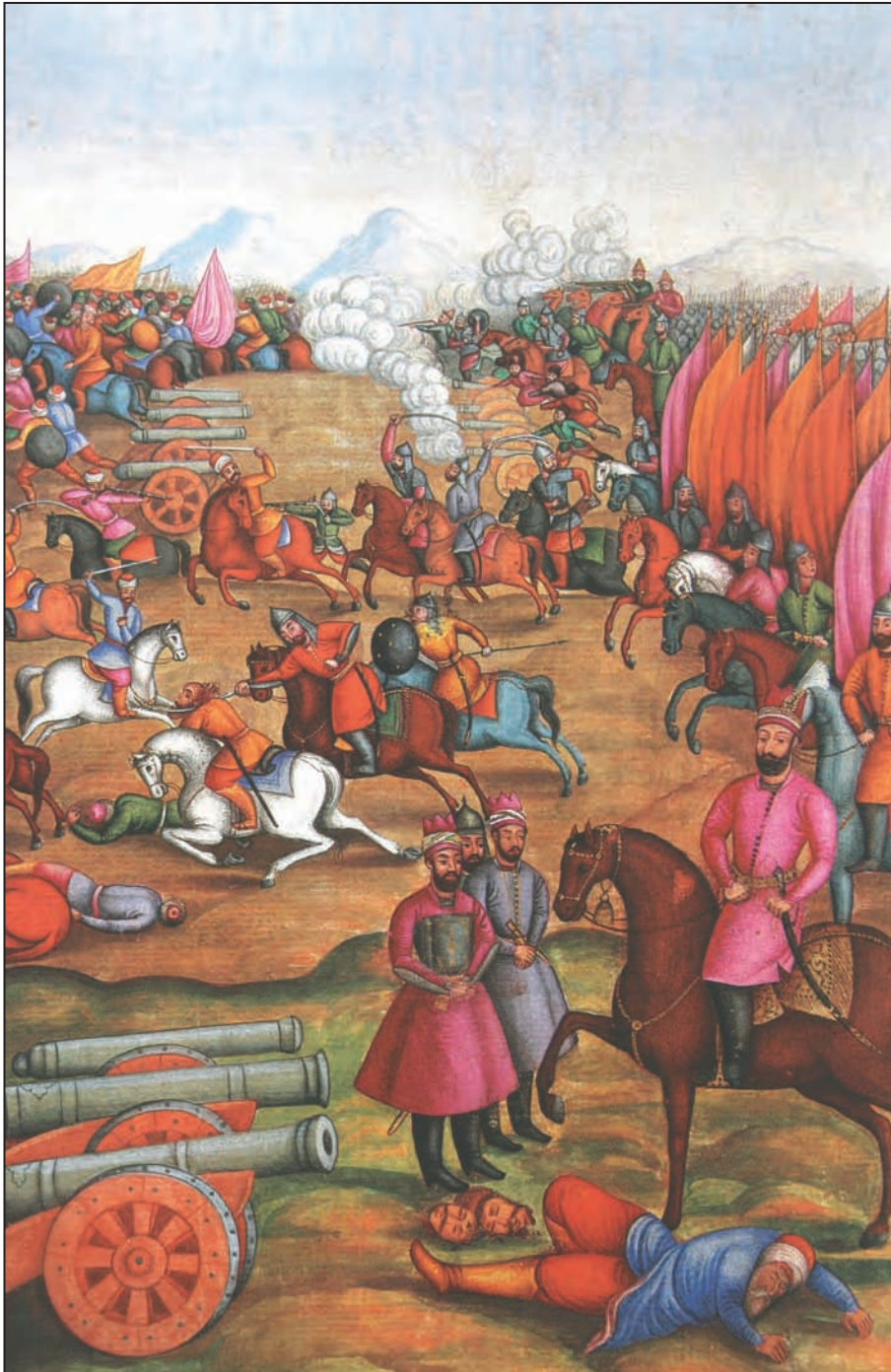


Figure 9. A miniature from the manuscript *Tārix-e Jahāngošāy-e Nāderi* [The History of the World Conquest of Nāder] shows the campaign between Nāder and Abdollāh Pāšā, the Ottoman general. The Persians have defeated the Ottoman army and the corpse of the Ottoman general is lying on the ground at the feet of Nāder's horse. Three men are standing in front of Nāder Šāh. Note the man standing in the front is wearing a *čāhrāyne* similar to the examples shown in pictures 6-8. The manuscript was finished in 1757 C.E. (Courtesy of Abdolali Adib Barumand).



Figure 10. Another miniature from the manuscript *Tārix-e Jahāngošāy-e Nāderi* [The History of the World Conquest of Nāder] shows a warrior armed with a *čāhrāyṉe* and mail armour fighting on the right side of the picture on the bottom.



Figure 11. A miniature from an 18th-century manuscript of the *Šāhnāme* shows Rostam on the battlefield (Courtesy of National Library of Iran).

2.3 GARIBĀN گریبان

It is a type of mail armour that protected the neck but also provided extra protection for the upper breast. The technical term for this piece of armour in English is «standard». The term *garibān* گریبان is mentioned in the Persian manuscript *Eskandarnāme* (Hakim, unspecified date:267) that is based on 12th-century tales and recollected in the 17th century. The roots of the term go back to the Middle Persian/Pahlavi term *garīvpān* (for the Middle Persian term see Farahvaši, 2002a/1381:525). At times, Persian manuscripts define specifically that *garibān* گریبان was part of the mail armour such as *garibān-e zereh* زره گریبان (standard of the mail armour) in the Safavid-period manuscript *Dāstān-e Hosseyn Kord-e Šabestari* (*Dāstān-e Hosseyn Kord-e Šabestari*, 2003/1382:56).

2.4 JŌŠAN جوشن

This is a type of armour that is often mentioned in Persian manuscripts.⁷ According to the Digital Lexicon of Dehxodā, *jōšan* جوشن is a type of mail-and-plate armour and is similar to *tanure* تنوره insofar as both are made from mail and iron/steel plates; however, the iron/steel plates (*qeybe* غیبه) of *jōšan* جوشن are shorter/smaller than the ones used in *tanure* تنوره. In the manuscript *Dārābnāme-ye Tarsusi* based on old Pahlavi texts (Tarsusi, 1977/2536:121, vol. 2), the expression *jōšan-e xord qeybe* جوشن خردغیبه (a *jōšan* جوشن armour with small iron/steel plates) is used supporting the statement by Dehxodā. The 15th-century manuscript *Dārābnāme* (Beiqami, 2002/1381:314; vol.1) uses the expression *jōšan seyqal zadan* جوشن صیقل زدن (to polish *jōšan* جوشن armour), indicating that *jōšan* جوشن armour was indeed made of metal. The *Dārābnāme-ye Tarsusi* based on old Pahlavi texts (Tarsusi, 1977/2536:45, vol. 1) uses the term *jōšan-e mozarrod* جوشن مزرد (*jōšan* جوشن armour with mail rings) supporting the assumption that *jōšan* جوشن armour indeed consisted of mail rings as well. Dehxodā also offers the term *jōšan-e dāvudī* جوشن داودی (literally a *jōšan* جوشن armour attributed to the Prophet Dāvud; a *jōšan* جوشن armour with *dāvudī* style riveted mail) supporting the idea that *jōšan* جوشن armour indeed had mail rings (see *Digital Lexicon of Dehxodā*). Further expressions such as *āhanin jōšan* جوشن آهنین (the iron armour)⁸, *jōšan-e āhan* جوشن آهن (*jōšan* جوشن armour made of iron)⁹, and *jōšan-e fulād* جوشن فولاد (*jōšan* جوشن armour made of steel)¹⁰ also indicate that the armour had iron and steel parts/plates in it. The term *band-e jōšan* بند جوشن was used to refer to the straps that tighten the *jōšan* جوشن armour.¹¹ These straps were also called *peyvand* پیوند (strap/belt of the armour) (*Šāhnāme*, Ferdōsi, 1995/1384:1378):

یکی نیزه زد بر کمر بند او ی که بگسست خفتان و پیوند او ی
yeki neyze zad bar kamarband uy ke begosast xaftān va peyvand uy
 He struck him on the belt with his spear and tore his armour padding and the armour belts.

⁷ For the usage of *jōšan* جوشن in the Persian manuscripts see the 10th-century anthology *Divān-e Rudaki Samarqandi* (Rudaki, 2004/1382:17), the 10th-century epic *Šāhnāme* (Ferdōsi, 1995/1384:450), the 10th-century epic *Goštāsbnāme* (Daqiqi Tusi, 1994/1373:80), the 11th-century epic *Garšāsbnāme* (Asadi Tusi, 1938:1317:60), the 11th-century anthology *Aš'ār-e Onsori Balxi* (Onsori Balxi, 1990/1369:18), the 11th-century travel accounts *Safarnāme-ye Nāser Xosrō* (*Nāser Xosrō*, 1985:1363:82), the 11th-century anthology *Vēys va Rāmin* (As'ad Gorgāni, 1970:1349:71), the 14th century manuscript *Tārix-e Sistān* (1992/1381:434), the 17th-century anthology *Tazakore-ye Nasrābādi* (*Nasrābādi Esfahāni*, 1941/1317:466), and the 18th-century manuscript *Ālam Ārāye Nāderi* (Marvi Vazir Marv, 1985/1374:117).

⁸ See the 19th-century anthology *Šāhanšāhnāme* (Fathali Xān Sabā, 142).

⁹ See the 11th-century manuscript *Samak Ayyār* (al-Kāteb al-Rajāni, 2004/1383:109).

¹⁰ See the 13th-century anthology *Qate'āt* (Sa'di, 2005/1383:707).

¹¹ See the 10th-century epic *Šāhnāme* (Ferdōsi, 1995/1384:212).

In line with Iranian sources, Kobylinsky (2000:68) distinguishes between *jōšan* جوشن and *zereh* زره stating that *jōšan* جوشن is a mail-and-plates construction which appeared simultaneously in Iran, Turkey, and north India. Kobylinsky (2000:68) states that in Iran, *jōšan* جوشن was in the shape of jackets or coats from steel mail with two, four, or eight steel plates arranged in two rows, with a buckle in front, and three or five rows of small tiles on the back; these were arranged similarly to roof tiles. Some *jōšan* جوشن carry the small tiling on the front. Kobylinsky (2000:68) further stresses that it is very difficult to determine the origin of *jōšan* جوشن since Iranian and Indian pieces are very similar. According to Kobylinsky (2000:68) *zereh* زره stands for «mail» and there were many types of it in Iran. Interestingly, this is in line with the descriptions given in Persian lexicons.

Quoting the lexicon *Annanderāj* آنندراج, the *Digital Lexicon of Dehxodā* states that *jōšan* جوشن was a combination of mail and plates, whereas *zereh* زره stands for mail only. The *Lexicon of Borhān* confirms that *zereh* زره consists of different rings to offer protection for the body and that it is worn to go to war. Ferdōsi uses both terms *jōšan* جوشن and *zereh* زره in his 10th-century epic *Šāhnāme*. Both are used in the 14th century manuscript *Tārix-e Sistān* as well (see *Digital Lexicon of Dehxodā*). Regarding different types of armour, Nicolle (1998:15) differentiates between *zereh* زره, *kazaghānd* [qazāqand قزاقند or qazāgand قزاگند], and *jōšan* جوشن. Similar to the *Digital Lexicon of Dehxodā*, he states that *zereh* زره was the traditional mail hauberk. He adds that this body armour remained the main form of body protection. He further opines that *qazāqand* قزاقند was fabric-covered and integrally padded explaining that *qazāghānd* spread westward from its origins in Iran or Transoxania (in Central Asia) during the 10th century Nicolle (2002:188) also differentiates between *jōšan* جوشن (lamellar cuirass in his explanation), *zereh* زره (mail hauberk) and iron *tanur* تنور. In Nicolle's terms, the latter term is used to refer to more ancient Sassanian armour. However, one should note that *tanur* تنور was not only used during the Sassanian period as an armour type called *tanure* تنوره was also in use in later periods as was a type of armour made of mail and plates. Nicolle suggests that he based his statements on the reports by al-Tha'ālini writing in the late tenth century. But one should note that *jōšan* جوشن never referred to lamellar armour. It might have referred to some type of leather armour – but not lamellar – and, it later refers to a combination of mail and plates. In Europe, this covered mail was initially called a *jazerant* and was later known as a *gestron*.

According to Nicolle (2002:180), *jazerant* or *jazrain* stems from the Persian word *ka-zaqand* and means a mail shirt (*haubergeon*) with integral padding plus a fabric-covered exterior. Interestingly, Nicolle (1998:15) considers *jōšan* جوشن to be a lamellar cuirass that was adopted from the east where it had been most common. Nicolle explains that it could be made of iron, horn, or hardened leather, and was usually laced with gut and buckled at the side of the body. He adds that *jōšan* جوشن from Iran were heavier than those from Byzantium (Nicolle, 1998:15). Based on the epic *Šāhnāme* which was written in the 10th century, Nicolle (2002:189) states that the heroes of the epic wear mail armour and lamellar *jōšan* جوشن cuirasses, but does not provide any specific reference to indicate whether these two terms were described in detail regarding their construction in the 10th-century epic *Šāhnāme*. However, Nicolle (2002:192) admits that although the *Šāhnāme* provides additional details regarding the construction of a *jōšan* جوشن and makes references to its leather straps or fastening, one gets the impression that *jōšan* جوشن was a cuirass made of iron rather than hardened leather elements. In the *Šāhnāme*, the leather straps are called *band-e jōšan* بند جوشن (Ferdōsi, 1995/1384:212). The expression *jōšan-e āhan* جوشن آهن (armour made of iron) used in the 11th-century manuscript *Samak Ayyār* (al-Kāteb al-Rajāni, 2004/1383:109) shows that *jōšan* جوشن or at least a type of *jōšan* جوشن was made of iron. Additionally, the combination *jōšan-i zarrin* جوشنی زرین (lit. golden *jōšan*

armour; a *jōšan* armour decorated with gold-inlaying or overlaying)¹² shows that *jōšan* جوشن would have been made from a certain type of metal to allow gold-inlaying. In the same line of argumentation one should note the expressions *jōšan-e zarandud* جوشن زراندود (a *jōšan* جوشن armour decorated with gold inlaying/overlaying)¹³ and *jōšan-e zarnegār* جوشن زرنگار (a *jōšan* جوشن armour decorated with gold inlaying/overlaying)¹⁴ indicate that *jōšan* جوشن would have been made from a certain type of metal. One should also take into consideration that, based on the Digital Lexicon of Dehxodā, later Iranian sources consider *jōšan* جوشن to be a combination of mail and plates and not lamellar armour as shown above. In the 11th-century manuscript *Samak Ayyār*, *jōšan* جوشن is explained as an armour that was worn over mail armour, see al-Kāteb al-Rajāni (2004/1383:391):

زرهي داودی پوشمید و جوشن بسیار خوب بالای آن داشت
Zereh-i dāvudi pušide va jōšan-i besyār xub bālāye an dāšt
 He was wearing a riveted mail armour and over that a *jōšan*.

In another place in the 11th-century manuscript *Samak Ayyār* the expression *halqe-hāye jōšan* حلقهای جوشن (the rings of *jōšan*) is used (al-Kāteb al-Rajāni, 2004/1383:854). The term *halqe* حلقه means «ring» and refers to the rings used in mail armour. Note that the 11th-century manuscript *Samak Ayyār* was written by Faramarz ben Xodādād ben Abdollāh al-Kāteb al-Rajāni possibly at the end of the 5th century Hegira (the beginning of the 12th century) and is one of the oldest books in Persian literature. Taking the above statement into consideration, it is clear that *jōšan* جوشن was a type of armour that was worn over mail armour similar to the later *čāhrāyne* چهارآینه (four mirrors). It could also be that *jōšan* جوشن in the example above only refers to the *qeybe* غیبه (metal plates) of the mail-and-plates construction of the armour. Regarding the material of the *jōšan* جوشن, Nicolle (2002:191) states that medieval authors such as al-Tabari and al-Tarsusi relate that *jōšan* جوشن is of Iranian origin, and that al-Tarsusi gives instructions on how to make *jōšan* جوشن of leather. Al-Tarsusi states that to make *jōšan* جوشن, one should take camel skins, and soak them in milk and soda to get rid of the hair until the skins are whitened (Nicolle, 2002:203). According to Nicolle (2002:204), al-Tarsusi states that the *jōšan* جوشن is then molded from skin in the desired shape. Al-Tarsusi further adds that one should take a glass-full of -- (this word has disappeared; according to Nicolle, it is not clear what material in the manuscript) and pulverise it. The next step involves making a glue of this powder mixed with one equal part of filings/ shavings of *isfadariya* (according to Nicolle the meaning is unknown), red copper and some crushed emery. Al-Tarsusi explains that this glue is spread over the cut skins up to four times after each layer is dried up, resulting in four layers. He adds that the dried skins can then be varnished, colored or gilded (Nicolle, 2002:204). As mentioned above, in the 11th-century manuscript *Samak Ayyār*, al-Kāteb al-Rajāni (2004/1383:109) refers to *jōšan* جوشن as an armour that is made of iron and calls it *jōšan-e āhan* جوشن آهن.

On the other hand, in the 10th-century epic *Šāhnāme*, Ferdōsi refers to a type of *jōšan* جوشن that was made of leopard hide, called *jōšan ze čarm-e palang* جوشن ز چرم پلنگ (Ferdōsi, 1995/1384:450). This was obviously a very effective armour as is shown in the following verses:

مرا با دلاور بسی بود جنگ یکی جوشنستش ز چرم پلنگ
Mārā bā delāvar basi bud jang Yeki jōšansetaš ze čarm-e palang

¹² See the 14th-century manuscript *Majma' al-Ansāb* (Šabānkāre'i, 2002/1381:278).

¹³ See the 15th-century manuscript *Dārābnāme* (Beiqami, 2002/1381:295; vol.1).

¹⁴ See the 15th-century manuscript *Dārābnāme* (Beiqami, 2002/1381:409; vol.1).

[I fought against that brave man, who had an armour made of leopard hide, a lot]

سلیحم نیامد برو کارگر بسی آزمودم به گرز و تیر

Saliham nayāmad baru kārgar Basi āzmudam be gorz-o tabar

[My weapon did not have an effect on him no matter how much I tried by mace and axe].

In the same light, there was a type of armour called *babrbayān* ببریان or *babr-e bayān* ببریان see *Loqat-e Fors* (Asadi Tusi, 1986/1365:143). *Farhang-e Nafisi* describes *babrbayān* ببریان a long cloth made of leopard [tiger] hide worn by soldiers and also by Rostam (see Nafisi, 1964/1343:528, vol. 1).

There are other expressions in Persian manuscripts which indicate that a type of *jōšan* جوشن armour was indeed made of hide such as *jōšan az pust-e māhi* ماهی جوشن از پوست (a *jōšan* جوشن armour made of fish [probably referring to rayskin])¹⁵ and *jōšan az xaz* خز جوشن از (a *jōšan* جوشن armour made of the hide of a fur-bearing animal).¹⁶ Taking this account into consideration, it could be that the term *jōšan* جوشن went through a semantic shift through the centuries, or it could be that both materials existed in the beginning and later *jōšan* جوشن was used to refer to mail-and-plate armour exclusively. In the poems *Qate'āt* (pieces), Sa'di (2005/1383:707) uses the term *jōšan-e fulād* فولاد جوشن (*jōšan* armour made of steel). It seems that *jōšan* جوشن was made of different types of materials, such as metal and hide. It is not surprising as although the majority of *čāhrāyne* چهارآینه were made of steel, there are also examples made of rhino hide (see Moshtagh Khorasani, 2006:712, cat. 403). Things become even more complicated, as in the 12-century manuscript *Ādāb al-Harb va al-Šojā-e*, it is stated that *jōšan* جوشن was worn under the *zereh* زره (mail armour) (Mobārak Šāh Faxr-e Modabbar, 1967/1346:452):

زرهی پوشیده و جوشنی زیر آن پوشیده

zereh-i pušide va jōšani zir ān pušide

He was wearing a mail armour and underneath it a *jōšan* armour.

Persian manuscripts sometimes reveal the color of a *jōšan* جوشن armour such as *siyah jōšan* سیاه جوشن (the black armour).¹⁷ An armour with a rough surface is called *jōšan-e xarpošte* خرنپشته جوشن or simply *xarpošte* خرنپشته.¹⁸ Different expressions are used to describe the craftsman who made *jōšan* جوشن armour such as *jōšanbāf* جوشن باف (lit. someone who weaves *jōšan* جوشن armour; the *jōšan* جوشن maker, see the *Digital Lexicon of Dehxodā*), *jōšanduz* جوشن دوز (lit. someone who sews *jōšan* جوشن armour; the *jōšan* جوشن maker, see the *Digital Lexicon of Dehxodā*), and *jōšangar* جوشن گر (someone who makes *jōšan* جوشن armour).¹⁹ The warriors who wore a *jōšan* جوشن armour were called *jōšanpuš* جوشن پوش (armour wearer)²⁰ and *jōšanvar* جوشن ور (pl. *jōšanvaran* جوشن وران) (armour wearer).²¹

Another term for describing a *jōšan* جوشن armour is *xarātagin* خراتگین. Dehxodā states that *xarātagin* خراتگین is a type of *jōšan* جوشن and is also called *xarātakin* خراتکین or *xarpošt* خرنپشت. This word is spelled *xarātagini* خراتگینی in the 12-century manuscript *Ādāb al-Harb va al-Šojā-e* (Mobārak Šāh Faxr-e Modabbar, 1967/1346:467) or *xarāmkeši* خرامکشی or *xarātagin* خراتگین (Mobārak Šāh Faxr-e Modabbar, 1967/1346:339). *Dorrā'e* دراع is another term that is

¹⁵ See *Dārābnāme-ye Tarsusi* (Tarsusi, 1977/2536:73, vol. 1) that is based on old Pahlavi texts.

¹⁶ See the 11th-century anthology *Divān-e Mas'ud Sa'd Salmān* (Sa'd Salmān, 1995/1374:381).

¹⁷ See the 19th-century anthology *Šahanšahnāme* (Fathali Xān Sabā, 21).

¹⁸ See the 11th-century anthology *Divān-e Manučeheri Dāmḡāni* (Manučeheri Dāmḡāni, 1984/1363:18)

¹⁹ See the 11th-century anthology *Divān-e Manučeheri Dāmḡāni* (Manučeheri Dāmḡāni, 1984/1363:76).

²⁰ See the 12-century manuscript *Ādāb al-Harb va al-Šojā-e* (Mobārak Šāh Faxr-e Modabbar, 1967/1346:249).

²¹ See the 10th-century epic *Šāhnāme* (Ferdōsi, 1995/1384:198).



Figure 12. A miniature from a 17th-century manuscript of the *Šāhnāme* shows the battlefield between the army of Gaštāsp with the army of Alyās (Courtesy of the National Library of Iran).

used to describe a *jōšan* جوشن armour (see the *Digital Lexicon of Dehxodā*). This is also written as *dorrā* 'e دراعه.²² A warrior who wore a *dorrā* 'e دراعه was called *dorrā* 'epuš دراعهپوش (see the *Digital Lexicon of Dehxodā*).

²² See the 11th-century manuscript *Tārix-e Beyhaqi* (Beyhaqi, 2004/1383:521) and the 11th-century ontology *Aš 'ār-e Onsori Balxi* (Onsori Balxi, 1990/1369:22).

Another armour that was also worn with mail armour was called *jobbe* ²³جبهه. The following sentences from the 17th-century manuscript *Rozat al-Safaviye* (Jonābodī, 1999/1378:441) show that *jobbe* ²³جبهه was worn together with *zereh* زره (mail armour):

به زخم نیزه یکی از غازیان جلادت نشان از پشت زین بر روی زمین قرار گرفت. اما
بواسطه پوشش جبهه و زره گرانمایه اذیتی به وی نرسید.

[. . .] *be zaxm-e neyze yeki az qāziān jelādāt nešan az pošt-e zin bar ruye zamin garār ge-reft. Amma be vāseteye pūšeš-e jobbe va zereh gerānmāye aziyatti be vey naresid.*

[. . .] with the strike of a spear by one of the brave warriors, he was unsaddled and hit the ground. However, due to the armour (*oabbe* ²⁴جبهه) and the quality mail armour; he was wearing, he was not injured.

The person who wore a *jobbe* ²⁵جبهه was called *jobbe 'dār* جبهه دار (see *Farhang-e Nafisi*, Nafisi, 1964/1343:1064, vol. 2) and *jobbe 'puš* جبهه پوش (see the 15th-century manuscript *Zafarnāme*, Yazdi, 1957/1336b:69).

2.5 KOLĀHXUD کلاه خود

In Persian manuscripts, the term *kolāhxud* کلاه خود is used to refer to the helmet used by warriors.²⁴ The Iranian helmets from the period following the Mongol Invasion in the 13th century had a round dome ending at the top with either a pointed tuft or a protruding spike (Kobylynsky, 2000:69). These helmets had mail or leather aventails to protect the neck and face. According to Kobylynsky (2000:69), based on the miniatures from the 14th century, helmets from this period were simple with spherical or slightly cone shaped domes with ear protectors in the form of circular plates. These also have aventails in the form of mail. Zeller and Rohrer (1955:36) state that the Iranian helmets are made of steel. The shape of the helmet has remained the same for centuries: a hemispherical bell or cone-shaped. There is a nose protector, *damāqak*, in the front. There are also cases for holding feathers called *jāpari*; the feathers that were put into them were called *ablaq*. Normally, helmets had two plume holders for two plumes, but some had up to four as shown in the expressions *kolāh-e čāhrpar* کلاه چهار پر (lit. a hat with four plumes/feathers; a helmet with four plumes/feathers)²⁵ and *kolāh-i siyah-e čāhrpar* کلاه سیاه چهار پر (a black helmet with four plumes/feathers).²⁶

There is also an aventail made of mail. According to Zoka (1971/1350:191), the Safavid helmets were called either *kolāhxud* or *tāskolāh* and were comprised of two parts: the first part was the conical-shaped piece covering the head, which was made of hard steel, and the other was the neck protector made of mail rings protecting the neck. Further, he states that before putting the *kolāhxud* on the head, a cloth made of felt or silk, comprising of seven layers, was placed on the head for extra protection. This was called *araqčīn* (sweat collector). Some Qajar helmets are decorated with bird wings and heads (see Chodynski, 2000: plates 52; 61). According to Harper (1985:247), these Qajar helmets with birds' wings are made

²³ For the usage of the term *jobbe* ²³جبهه see the 11th-century manuscript *Tārix-e Beyhaqi* (Beyhaqi, 2004/1383:521, the 15th-century manuscript *Zafarnāme* (Yazdi, 1957/1336a:267, 412), the 17th-century manuscript *Rozat al-Safaviye* (Jonābodī, 1999/1378:134), and the Safavid-period manuscript *Ālam Ārāye Šāh Tahmāsp* (1991/1370:59).

²⁴ For example, see the 11th-century manuscript *Samak Ayyār* (al-Kāteb al-Rajāni, 2004/1383:180) and the 19th-century manuscript *Rostam al Tavārix* (Āsef, 2003/1382:191),

²⁵ See the 11th-century manuscript *Tārix-e Beyhaqi* (Beyhaqi, 2004/1383:509).

²⁶ See the 11th-century epic *Garšāsbnāme* (Asadi Tusi, 1938:1317:348).

in the fashion of late Sassanian crowns. There are also expressions that describe the fluted dome (numbers of flutes) of a helmet such as *kolāhxud-e čahrpahlū* کلاه خود چهارپهلو (helmet with four flutes [a fluted helmet])²⁷, *kolāhxud šišpahlū* کلاه خود شیشپهلو (helmet with six flutes [a fluted helmet])²⁸, *kolāhxud-e haštvaĵh* کلاه خود هشت وجه (a helmet with eight flutes [a fluted helmet])²⁹, *kolāhxud-e davāzdaĵh* کلاه خود دوازده پهلو (a helmet with twelve flutes [a fluted helmet])³⁰, and *kolāhxud-e šānzdaĵh* کلاه خود شانزدهپهلو (helmet with sixteen flutes [a fluted



Figure 13. A *kolāhxud* made of crucible steel attributed to the era of Fath Ali Šāh Qājār (1797-1834 C.E.) with the gold-inlaid inscriptions *Al Soltān Fath Ali Šāh Qājār* (The ruler Fath Ali Šāh Qājār) on the nose protector (Courtesy of the Military Museum of Tehran).

²⁷ See the 15th-century manuscript *Dārābnāme* (Beiġami, 2002/1381:277; vol.1).

²⁸ See the 11th-century manuscript *Samak Ayyār* (al-Kāteb al-Rajāni, 2004/1383:423).

²⁹ See the 11th-century manuscript *Samak Ayyār* (al-Kāteb al-Rajāni, 2004/1383:927).

³⁰ See the 15th-century manuscript *Dārābnāme* (Beiġami, 2002/1381:621; vol.1).

helmet]).³¹ There are also expressions that indicate gold-inlaying or gilding such as *kolāhxud-e zarandud* کلاه خود زراندود (a gilded helmet)³² and *kolāhxud-e šānzdahpahu-ye mozahhab* مذهب شانزدهپهلوی کلاه خود (a gilded helmet with sixteen flutes).³³ There is also an expression for a helmet decorated with jewels such as *kolāhxud-e gōharnegār* کلاه خود گوهرنگار (helmet decorated with jewels).³⁴ A craftsman who made helmets was called *kolāhxudsāz* کلامخودساز.³⁵ Helmets with two horns on the top were called *kolāh-e došāx* کلاه دو شاخ (lit. a hat with two horns, a helmet with two horns).³⁶ Sometimes, Persian manuscripts reveal where the steel for making a helmet came from such as the expression *kolāh-i ze pulād-e čin* کلاه‌هی ز پولاد چین (a helmet made of steel from Turkestan/China).³⁷



Figure 14: A chiseled and gold-overlaid *kolāhxud* made of crucible steel attributed to the Qājār period (1794–1925 C.E.) (Courtesy of the Cultural Institute of Bonyād).

³¹ See the 15th-century manuscript *Dārābnāme* (Beiçami, 2002/1381:603; vol.1).

³² See the 15th-century manuscript *Dārābnāme* (Beiçami, 2002/1381:628; vol.1).

³³ See the 15th-century manuscript *Dārābnāme* (Beiçami, 2002/1381:626; vol.2).

³⁴ See the 11th-century manuscript *Samak Ayyār* (al-Kāteb al-Rajāni, 2004/1383:816).

³⁵ See the 19th-century manuscript *Jogrāfiyā-ye Esfahān* (Tahvildār Esfahāni, 1964/1342:109).

³⁶ See the 11th-century manuscript *Tārix-e Beyhaqi* (Beyhaqi, 2004/1383:79).

³⁷ See the 12th-century manuscript *Šarafnāme* (Nezāmi Ganje'i, 2007/1385a:125).



Figure 15. A miniature from a 16th-century manuscript of the *Šāhnāme* shows Keyxosro and the Turanian leaders (Courtesy of Sepahsālār Library). Note the warriors who are wearing fluted helmets.



Figure 16. A miniature from a 17th-century manuscript of the *Šāhnāme* depicts Rostam fighting Kāmus (Courtesy of the National Library of Iran). Note the warriors who are wearing dome-shaped helmets.



Figure 17. A miniature from the manuscript *Tārix-e Jahāngošāy-e Nāderi* [The History of the World Conquest of Nāder] shows the campaign between Nāder and the Afghans on the desert of Murče Xort, Isfahan. Note that Persian warriors are wearing spiked helmets.

2.6 LEBĀS-E RAZM لباس رزم

There are general terms to describe any type of armour or padding worn for protection before going to battle such as *lebās-e razm* لباس رزم (lit. war clothing).³⁸ At times the expression *lebās-e merixband* لباس مریخبند (an armour with iron straps) is also used.³⁹

2.7 NAMADPUŠ نمدهوش

Most troops could not afford to buy expensive armour and were protected by felt. These were called *namadpuš* نمدهوش (felt wearer; someone who uses felt as armour).⁴⁰

³⁸ See the 11th-century manuscript *Samak Ayyār* (al-Kāteb al-Rajāni, 2004/1383:1549).

³⁹ See the manuscript *Romuz-e Hamze* (1940/1359 Hegira recollected in 15th-century).

⁴⁰ See the 13th-century anthology *Bustān* (Sa'di, 2005/1383:242).

2.8 QAZĀGAND قز اگند

The term *qazāgand* قز اگند is used by Dehxodā to refer to padding worn under the armour (see *Digital Lexicon of Dehxodā*). Dehxodā's explanation cannot be correct as *qazāgand* is armour in its own right. It consists of mail armour sandwiched between two layers of light padding. Usamah Ibn-Munqidh (1987:130-131) describes a particularly heavy version made with two layers of mail (p.130-131). Usamah talks about wearing a *qazāgand* قز اگند constructed of two layers of mail during an incident when Saladin admonishes him for not donning his armour before a battle. He replies, «By Allah I can not put on anything more. We are in the early part of the night and my kazaghand [*qazāgand*] is furnished with two coats of mail, one on top of the other. As soon as I see the enemy I shall put it on.» After the battle he demonstrated the armour's construction to Saladin. «I pulled out my knife and ripped it at the breast and disclosed the side of the two coats of mail. The kazagand [*qazāgand*] enclosed a Frankish coat of mail extending to the bottom of it, with another coat of mail on top of it reaching as far as the middle. Both were equipped with the proper linings, felt pads, silk stuffing (*al-lasin*) and rabbits' hair.» In Europe this armour was called a *jazerant* and the word is probably a derivative of *qazāgand*. In the *Farhang-e Nafisi*, Nafisi (1964/1343:2658, vol. 4) provides two meanings for *qazāgand* قز اگند: a) a cloth that is filled with wool and silk and worn in the battle and b) mail armour. Other spellings for *qazāgand* قز اگند are *qazāgang* قز اگنگ and *qazāqand* قز اقند.

2.9 RĀNBAND ران بند

The thigh protector or a piece of armour meant for protecting the thigh was called *rānband* ران بند (*Digital Lexicon of Dehxodā*) or *rānin* رانین (see the 12-century manuscript *Ādāb al-Harb va al-Šojā-e*, Mobārak Šāh Faxr-e Modabbar, 1967/1346:369).

2.10 SĀQEDIN ساقدين

The armour protecting the shin was called *sāqedin* ساقدين.⁴¹

2.11 TANURE تنوره:

Another type of armour mentioned by Persian manuscripts is *tanure* تنوره.⁴² Based on the lexicons *Borhān*, *Farhang-e Rašidi*, and *Farhang-e Jahāngiri*, the *Digital Lexicon of Dehxodā* explains that *tanure* تنوره is an armour made of mail and iron/steel plates similar to *jōšan* جوشن; however, the iron/steel plates (*qeybe* غيبه) of are longer/bigger than the ones used in *jōšan* جوشن.

⁴¹ See the 14th-century manuscript *Majma' al-Ansāb* (Šabānkāre'i, 2002/1381:278)

⁴² For the usage the term *tanure* تنوره, see the 12th-century manuscript *Šarafnāme* (Nezāmi Ganje'i, 2007/1385a:127), the 19th-century manuscript *Rostam al Tavārix* (Āsef, 2003/1382:78), the 17th-century manuscripts *Resāle-ye Avval* (1985/1374:157) and *Resāle-ye Sevvom* (Yazdi Šāhrudi, 1985/1374:268).



Figure 18. A miniature from a 16 century manuscript of the *Šāhnāme* shows Raxš fighting a lion (Courtesy of Sepahsālār Library). Note Rostam who is sleeping and wearing *sāqedin* and knee protectors

2.12 خفتان *Xaftān*

Xaftān خفتان is the name of a padding worn under the armour.⁴³ However, there are different descriptions in different period Persian manuscripts regarding how this was worn and from which material it was made. In the *Digital Lexicon of Dehxodā*, *xaftān* خفتان is described as a padding that is very thick and the fabric is made of silk or wool, which makes deflects the impact of sword strikes. It is also called *qazāgand* فزاگند and it was a very thick fabric from *abrišam* ابریشم (silk) or *pašm* پشم (wool) which made the sword strikes slide off. The following verse from the 10th-century epic *Šāhnāme* in the chapter «Pādešāhi Xosrō Parviz» [The Rule of Xosrō Parviz] shows clearly that *xaftān* خفتان must have been a fabric or padding (Ferdōsi, 1995/1384:1354):

یکی سبز خفتان به زر بافته بسی شوشه زر بر و تافته
Yeki sabz xaftān be zar bāfte basi šuše zar baru bāfte
 [He has knitted a green *xaftān* خفتان with gold [threads], he twined many gold ingots for it.

Ma'tufi (1999/1378:221) states that a *xaftān* خفتان or *jivirak* was worn under the *jōšan* جوشن or *zereh* زره offering extra protection to the body. However, things even become more complicated when one checks the 11th-century epic *Garšāsbnāme*, where Asadi Tusi (1938:1317:101) describes that *xaftān* was worn on top of the mail armour:

زره زیر و خفتانش از بر کبود زیولاد ساعدش و از زر خود
Zereh zir va xaftānaš az bar kabud ze pulād sāedaš va az zar xud

He was wearing the mail armour underneath and, above that, a blue *xaftān* خفتان, his underarms were [armoured with] steel and his helmet was of gold.

This description is in line with the 11th-century manuscript *Samak Ayyār*, where it is described that *xaftān* خفتان was worn above *zereh* (mail armour) (al-Kāteb al-Rajāni, 2004/1383:927):

زرهي پوشيده و خفتانی در بالای آن خفتان *xaftān*
Zereh-i pušide va xaftāni dar bālāye ān
 He was wearing a mail armour and on top of that a *xaftān* خفتان.

One should note that in Europe it was discovered that wearing padding above the mail gave better protection against longbow arrows. It is likely that the same thing was observed in Iran. Nevertheless, variations of wearing a *xaftān* خفتان existed as some period manuscripts report that *xaftān* خفتان was worn under mail armour. In the 19th-century manuscript *Rostam al Tavārix*, Āsef (2003/1382:240) explains that Ahmad Xān first put on *qabā-ye pile duxte* دوخته قباي پيله (a dress that half silk cocoons are sewn on for decorative purposes), and then on top of that a *xaftān* خفتان (a war padding), and then on top of that a *zereh* زره (mail armour) and on top of that a *čahrāyne-ye fulād* چهار آينه فولاد (four mirrors made of steel plates). It seems that *xaftān* خفتان was worn under the armour, but at times similar to the usage in Europe, another padding was also worn on top of the mail armour to provide extra protection. However, other materials were also used to make a *xaftān* خفتان. The expression *xaftān-e fulādi* خفتان فولادی (a steel *xaftān* خفتان) from the 17th-century manuscript *Tārix-e Ālam Ārāye Abbāsi* (Eskandar Beig Torkamān, 2003/1382:42) shows that a type of *xaftān* خفتان was made of steel. Also the

⁴³ See the 10th-century epic *Šāhnāme* (Ferdōsi, 1995/1384:191).

19th-century anthology *Šahanšahnāme* (Fathali Xān Sabā, 380) reports of *xaftān-e āhan* آهن خفتان (iron *xaftān* خفتان). It could be that *xaftān-e āhan* آهن خفتان (iron *xaftān* خفتان) was simply another way to describe a mail hauberk.⁴⁴ There are Russian examples of mail that are tailored to look identical to civilian garments.

Persian manuscripts describe different materials for making a *xaftān* خفتان. These were either made of a) hide such as *xaftān az pust-e babr* خفتان از پوست ببر (a *xaftān* خفتان made of tiger hide (*Širuye Nāmdār*, 2005/1384:321), *xaftān az pust-e kargadan* خفتان از پوست کرگدن (a *xaftān* خفتان made of rhino hide)⁴⁵, *xaftān az pust-e xuk* خفتان از پوست خوک (a *xaftān* خفتان made of boar hide)⁴⁶, and *xaftān-e palang* خفتان پلنگ (a *xaftān* خفتان made of leopard hide)⁴⁷ or b) of metal such as *xaftān-e āhan* آهن خفتان (iron *xaftān* خفتان)⁴⁸ and *xaftān-e fulādi* خفتان فولادی (steel *xaftān* خفتان).⁴⁹ It could be that *xaftān-e āhan* آهن خفتان (iron *xaftān* خفتان) or *xaftān-e fulādi* خفتان فولادی (steel *xaftān* خفتان) was simply another way to describe a mail hauberk. Other expressions in Persian manuscripts reveal where a *xaftān* خفتان was made such as *xaftān-e čini* خفتان چینی (a *xaftān* خفتان from China/Turkestan (the 15th-century manuscript *Dārābnāme*, Beiqami, 2002/1381:529; vol.1), *xaftān-e rumi*: خفتان رومی (the Byzantine Roman/Anatolian armour padding⁵⁰, and *xaftān-e šoštari* خفتان ششتری (a attributed to *šoštār* ششتر (*šuštar* شوشتر) [a city in Xuzestān, name of a province in Iran]⁵¹). There are also expressions that describe the color of *xaftān* خفتان in Persian manuscripts, such as *xaftān-e la' l* خفتان لعل (a *xaftān* خفتان armour with the color of a ruby or a garnet)⁵², *xaftān-e nārenji* خفتان نارنجی (an orange-colored *xaftān* خفتان)⁵³, *xaftān-e siyāh* خفتان سیاه (a black-colored *xaftān* خفتان)⁵⁴, *xaftān-e sorx* خفتان سرخ (a red *xaftān* خفتان)⁵⁵, and *xaftān-e yāquti* خفتان یاقوتی (a *xaftān* خفتان with a ruby color [red])⁵⁶, and *simābgun xaftān* خفتان سیمابگون (a *xaftān* خفتان armour padding with a mercury color).⁵⁷ Another synonym for *xaftān* خفتان was *gabr* or *gabar* گبر (see the 10th-century epic *Šāhnāme*, Ferdōsi, 1995/1384:442):

زره دارد و جوشن و خود و گبر بغرد به کردار غرّنده ابر

Zereh dārad va jōšan va xud va gabr beqorrad be kerdār qorrande abr

He is wearing mail armour, jōšan جوشن armour, and a padding, he yells like a thundering cloud.

⁴⁴ For the usage of the term *xaftān* خفتان in other Persian manuscripts see the 11th-century epic *Garšāsbnāme* (Asadi Tusi, 1938:1317:50), *Veys va Rāmin* (As'ad Gorgāni, 1970:1349:142), the 12th-century manuscript *Šarafnāme* (Nezāmi Ganje'i, 2007/1385a:105), the 13th-century anthology *Bustān* (Sa'di, 2005/1383:242), the 12-century manuscript *Ādāb al-Harb va al-Šojā-e* (Mobārak Šāh Faxr-e Modabbar, 1967/1346:147), the 13th-century manuscript *Zaratoštnāme* (Bahrām Pajdō, 1960/1338:75), *Ardāvīrāfnāme* (Bahrām Pajdō, 1965/1343:29), the manuscript *Romuz-e Hamze* (1940/1359 Hegira:116) recollected in 15th-century, and *Resāle-ye Čāhrom* (1985/1374:399).

⁴⁵ See the 12th-century manuscript *Šarafnāme* (Nezāmi Ganje'i, 2007/1385a:121).

⁴⁶ See the 10th-century manuscript *Abu Moslemnāme* (Tartusi, 2001/1380:166; vol. 4).

⁴⁷ See the 11th-century epic *Garšāsbnāme* (Asadi Tusi, 1938:1317:444).

⁴⁸ See the 19th-century anthology *Šahanšahnāme* (Fathali Xān Sabā, 380).

⁴⁹ See the 17th-century manuscript *Tārix-e Ālam Ārāye Abbāsi* (Eskandar Beig Torkamān, 2003/1382:42).

⁵⁰ See the 10th-century epic *Šāhnāme* (Ferdōsi, 1995/1384:351).

⁵¹ See the 10th-century manuscript *Abu Moslemnāme* (Tartusi, 2001/1380:205–206; vol. 2).

⁵² See the manuscript *Širuye Nāmdār* (2005/1384:189).

⁵³ See the 15th-century manuscript *Dārābnāme* (Beiqami, 2002/1381:389; vol.1).

⁵⁴ See the 15th-century manuscript *Dārābnāme* (Beiqami, 2002/1381:545; vol.1).

⁵⁵ See the 15th-century manuscript *Dārābnāme* (Beiqami, 2002/1381:319; vol.1).

⁵⁶ See the manuscript *Romuz-e Hamze* (1940/1359 Hegira:763) recollected in 15th-century.

⁵⁷ See the 11th-century anthology *Divān-e Mas'ud Sa'd Salmān* (Sa'd Salmān, 1995/1374:361).

2.13 ZEREH زره

The term *zereh* زره refers to mail armour.⁵⁸ A mail armour consists of different iron/steel rings. Good quality ones were made of riveted links. A link of mail armour was called *čambar-e zereh* زره چمبر⁵⁹ or *mozarrad* مزرد.⁶⁰ A mail armour with riveted links is called *zereh-e dāvud* زره داود (literally, a mail armour attributed to the Prophet Dāvud; riveted mail)⁶¹ or *zereh-e dāvudi* زره داودی.⁶² Another term for *zereh-e dāvudi* زره داودی is *zereh-e mixgerd* زره میخگرد.⁶³ The term *zereh-e dāvudi* زره داودی is used to refer to a riveted mail, a sturdy mail with small rings that are linked through each other and riveted closed. A riveted mail ring is called *halqe-ye mixi* حلقه میخی. If a ring has two rivets, it is called *halqe-ye dokmixi* حلقه دومیخی. In case of three rivets in a ring, the ring is called *halqe-ye semixi* حلقه سه میخی.⁶⁴ Dehxodā explains that *zereh dāvudi* زره داودی is a type of mail armour where sword strikes and arrows cannot pierce it. This term is used to describe mail made in the *dāvudi* داودی style. It is different to (and likely superior to) *zereh-e mamuli* زره معمولی which is lighter and less resistant to arrows. A *zereh-e mamuli* زره معمولی is used to refer to mail armour with brazed or butted rings. A brazed mail link is called *halqe-ye lahimi* حلقه لحيمی. A combination of a riveted and brazed ring is called *halqe-ye lahimi bā mix* حلقه لحيمی با میخ.⁶⁵

The effectiveness of the mail armour is stressed in the 10th-century epic *Šāhnāme* couple of times, such as in the following verse (Ferdōsi, 1995/1384:1351):

بزد نیزه‌ای بر کمر بند او ی زره بود نگسست پیوند او ی

bezad nezze-I bar kamarband uy zereh bud nagosasat peyvand uy

He hit him with his spear on his belt [however] there was a mail armour and it did not tear it. Also see the 14th century manuscript *Tārix-e Sīstān* (1992/1381:434).

A tightly woven mail or a mail with a dense weave is called *zereh-e tang* زره تنگ حلقه⁶⁶ or *zereh-e xord halqe* زره خرد حلقه⁶⁷ and a mail armour with small and tightly woven riveted rings is named *zereh-e tang halqe-ye dāvudi* زره تنگ حلقه داودی⁶⁸ or *zereh-e tang-e dāvudi* زره تنگ حلقه داودی⁶⁹. A mail armour with gilded or gold-inlaid rings was called *zereh-e zaranud-e tang halqe* زره زرین زره⁷⁰ or *zereh-i zarrin* زره زرین⁷¹. The lower part of the mail armour or the skirt of the mail armour was called *zereh dāman* زره دامن⁷², the sleeve of a mail armour was called

⁵⁸ For the usage of the term *zereh* زره see the 11th-century epic *Garšāsbnāme* (Asadi Tusī, 1938:1317:83), the 11th-century manuscript *Tārix-e Beyhaqi* (Beyhaqi, 2004/1383:135), and the 10th-century manuscript *Abu Moslemnāme* (Tartusi, 2001/1380:269).

⁵⁹ See the manuscript *Tarix-e Ālam Āryā-ye Amīni* (Xonji Esfahāni, 2003/1382:149).

⁶⁰ See the 11th-century anthology *Divān-e Manučeheri Dāmāni* (Manučeheri Dāmāni, 1984/1363:18).

⁶¹ See the manuscript *Romuz-e Hamze* (1940/1359 Hegira:59) that was recollected in 15th-century.

⁶² For the usage of the term *zereh-e dāvudi* زره داودی see the 11th-century anthology *Divān-e Manučeheri Dāmāni* (Manučeheri Dāmāni, 1984/1363:178), the manuscript *Dārābnāme-ye Tarsusi* (Tarsusi, 1977/2536:45, vol. 1) that was based on old Pahlavi texts; and the 11th-century manuscript *Samak Ayyār* (al-Kāteb al-Rajāni, 2004/1383:391)

⁶³ See Šahidi (2001/1380:405).

⁶⁴ See Romanowsky (1967c/1346: picture 27).

⁶⁵ Idem.

⁶⁶ See the Safavid-period manuscript *Ālam Āryā-ye Šāh Tahmāsp* (1991/1370:59).

⁶⁷ See the manuscript *Dārābnāme-ye Tarsus* (Tarsusi, 1977/2536:134, vol. 2) that was based on old Pahlavi texts.

⁶⁸ See the manuscript *Širuye Nāmdār* (2005/1384:77).

⁶⁹ See the Safavid-period manuscript *Dāstān-e Hosseyn Kord-e Šabestari* (2003/1382:30 and the manuscript *Širuye Nāmdār* (2005/1384:410).

⁷⁰ See the 10th-century manuscript *Abu Moslemnāme* (Tartusi, 2001/1380:365; vol. 3).

⁷¹ See the 14th-century manuscript *Majma' al-Ansāb* (Šabānkāre'i, 2002/1381:278).

⁷² See the *Digital Lexicon of Dehxodā*.

āstin-e zereh زره آستین⁷³, the [front, back] opening of a mail armour was named *čāk-e zereh* زره چاک⁷⁴, and the padded area on the neck part of the mail armour for providing extra protection so that the rings would not injure the neck was called *baleštak* بالشتک⁷⁵.

Sometimes Persian manuscripts reveal where a type of mail armour was made such as *zereh-e quriyāne* زره غوریانه (a type of mail armour from Quriyān, a place on the eastern side of the fortification wall of Buxārā)⁷⁶, *zereh-e soqdi* زره سغدی (the Soghdian mail armour)⁷⁷, and *čini zereh* زره چینچ (a mail armour from China/Turkestan).⁷⁸ The term *band-e zereh* بند زره was used to refer to the straps that tighten the mail armour.⁷⁹ Some expressions also describe the color of the mail armour such as *meškin zereh* زره مشکین (black/dark mail armour).⁸⁰ A gilded mail was called *zarrin zereh* زره زرین⁸¹ and a mail armour decorated with silver inlay/overlay was called *simin zereh* زره سیمین.⁸²

A craftsman who made mail armour was called *zerehbāf* زره‌باف⁸³, *zerehduz* زره‌دوز⁸⁴, *zerehgar* زره‌گر⁸⁵ or *zerehsāz* زره‌ساز.⁸⁶ A warrior who wore a mail armour was called *zerehdār* زره‌دار⁸⁷, *zerehvar* زره‌ور⁸⁸ or *zerehpuš* زره‌پوش.⁸⁹ A type of mail armour, possibly shorter versions, was called *zerehin* زره‌ین.⁹⁰ Persian manuscripts report that at times a mail armour could be made of up to fourteen different part as in the expression *čāhrdah tekke-ye zereh jangi* جنگی چهارده تکه زره.⁹¹

Another term used to describe mail armour in Persian manuscripts is *der'* درع (pl. *doru'* دروع, *adrā'* ادرع, *adro'* ادرع, *derā'* ادرع).⁹² The *Digital Lexicon of Dehxodā* describes that *der'* درع is a cloth that is made/weaved from iron mail and is used to protect the body during the battle.⁹³ The expression *der'-e mozarrad* درع مزرد (mail armour with rings) reveals that *der'* درع was indeed a mail armour that consisted of rings.⁹⁴ The expression *der'-e dāvudi* داودی

⁷³ See the Safavid-period manuscript *Dāstān Hosseyn Kord-e Šabestari* (*Dāstān Hosseyn Kord-e Šabestari*, 2003/1382:30).

⁷⁴ See the 11th-century epic *Garšāsbnāme* (Asadi Tusi, 1938:1317:448).

⁷⁵ See Šahidi (2001/1380:405).

⁷⁶ See the 10th-century manuscript *Abu Moslemnāme* (Tartusi, 2001/1380:269; vol. 2).

⁷⁷ See the 11th-century epic *Garšāsbnāme* (Asadi Tusi, 1938:1317:331).

⁷⁸ See the 19th-century athology *Šahanšahnāme* (Fathali Xān Sabā, 206).

⁷⁹ See the 10th-century epic *Šāhnāme* (Ferdōsi, 1995/1384:1321).

⁸⁰ See the 11th-century epic *Garšāsbnāme* (Asadi Tusi, 1938:1317:366).

⁸¹ See the 19th-century athology *Šahanšahnāme* (Fathali Xān Sabā, 237).

⁸² See the 11th-century epic *Garšāsbnāme* (Asadi Tusi, 1938:1317:333).

⁸³ See the *Digital Lexicon of Dehxodā*.

⁸⁴ See Ma'tufi (1999/1378:446) and the *Digital Lexicon of Dehxodā*.

⁸⁵ See the 11th-century anthology *Divān-e Manučeheri Dāmqaṇi* (Manučeheri Dāmqaṇi, 1984/1363:60) and *Manteq al-Teyr* (Attār Neišāburi, 1993/1372:2).

⁸⁶ See the 19th-century manuscripts *Rostam al Tavārix* (Āsef, 2003/1382:89) and *Jogrāfiyā-ye Esfahān* (Tahvildār Esfahāni, 1964/1342:109).

⁸⁷ See the 10th-century epic *Šāhnāme* (Ferdōsi, 1995/1384:284).

⁸⁸ See *Moxtārnāme* (Attār Neišāburi, 1979/1358:179).

⁸⁹ See the 11th-century epic *Garšāsbnāme* (Asadi Tusi, 1938:1317) and the 11th-century manuscript *Tārix-e Beyhaqi* (Beyhaqi, 2004/1383:540).

⁹⁰ See the 12-century manuscript *Ādāb al-Harb va al-Šojā-e* (Mobārak Šāh Faxr-e Modabbar, 1967/1346:369).

⁹¹ See the 11th-century manuscript *Samak Ayyār* (al-Kāteb al-Rajāni, 2004/1383:689).

⁹² See the 10th-century epic *Šāhnāme* (Ferdōsi, 1995/1384:191).

⁹³ For the usage of the term *der'* درع also see the 11th-century epic *Garšāsbnāme* (Asadi Tusi, 1938:1317:50, 112), the 11th-century anthology *Divān-e Qatrān-e Tabrizi* (Qatrān-e Tabrizi, 1983/1362:407), the 14th-century manuscript *Zafarnāme* (Mostufi, 1999/1377:1252), the 17th-century manuscript *Tārix-e Ālam Ārāye Abbāsi* (Eskandar Beig Torkamān, 2003/1382:701), and the 18th-th century manuscript *Tārix-e Jahāngošāy-e Nāderi* (Esterābādi, 1991/1370:12). For the plural usage of this word, see the 17th-century manuscript *Rozat al-Safaviye* (Jonābodi, 1999/1378:789).

⁹⁴ See the 11th-century anthology *Divān-e Manučeheri Dāmqaṇi* (Manučeheri Dāmqaṇi, 1984/1363:18).

درع (a riveted mail armour) shows that the rings of *der'* درع were riveted.⁹⁵ The following expressions show that some *der'* درع armour were made of iron such as *der' al-hadid* الحديد درع (an iron mail armour)⁹⁶ and *der'-e āhan* درع آهن (an iron mail armour)⁹⁷ and others made of steel such as *pulād der'* پولاد درع (mail armour made of steel).⁹⁸ The expressions show that mail armour was combined with padding such as *der' va xaftān* درع و خفتان (mail armour and padding)⁹⁹ and *der' va xaftān-e mokammel* درع و خفتان مکمل (mail armour and padding which complete each other; which go together).¹⁰⁰ The person who was wearing a mail armour was also called *der'puš* درع پوش.¹⁰¹ Other terms for describing other types of mail armour are *qadar* قدر and *jayba* جيبه.¹⁰²



Figure 19. A riveted mail armour from the early Qājār period (1794–1925 C.E.) (Courtesy of the Cultural Institute of Bonyād).

⁹⁵ See the 12th-century manuscript *Haft Peykar* (Nezāmi Ganje'i, 1999/1377:133) and the 19th-century epic *Šāhnāme-ye Nāderi* (Nāderi, 1968/1346:249).

⁹⁶ See the *Digital Lexicon of Dehxodā*.

⁹⁷ See the 12th-century manuscript *Haft Peykar* (Nezāmi Ganje'i, 1999/1377:106).

⁹⁸ See the *Digital Lexicon of Dehxodā*.

⁹⁹ See the 17th-century manuscript *Tārix-e Ālam Ārāye Abbāsi* (Eskandar Beig Torkamān, 2003/1382:701).

¹⁰⁰ See the 18th-century manuscript *Tārix-e Jahāngošāy-e Nāderi* (Esterābādi, 1991/1370:12).

¹⁰¹ See the 11th-century epic *Garšāsbnāme* (Asadi Tusi, 1938:1317:253) and the 19th-century anthology *Šahanšahnāme* (Fathali Xān Sabā, 261).

¹⁰² See the *Digital Lexicon of Dehxodā*.



Figure 20. A riveted mail armor attributed to the era of Fath Ali Šāh Qājār (1797-1834 C.E.) (Courtesy of the Military Museum of Bandar Anzali).



Figure 21. A miniature from the manuscript *Tārix-e Jahāngošāy-e Nāderi* [The History of the World Conquest of Nāder] shows the majority of Persian warriors depicted on the right side wearing mail armour. The painting depicts the campaign between Nāder and Ašraf the Afghan at Mehmāndust, Damqān. The Afghans are fleeing away.

2.14 ZEREHKOLĀH زرهکلاه

A mail coif/ mail hood, meaning a mail armour covering the head and at times the face, was called *zerehkolāh* زرهکلاه.¹⁰³ This was also called *kolāhzereh* زرهکلاه¹⁰⁴ or *zerehxud* زرمخود.¹⁰⁵ The eye opening/slit or the link of an eye opening in the mail hood was called *halqe-ye češm-e zereh* حلقه چشم زره.¹⁰⁶

2.15 SALIH سلیح

There are some terms describing armour that cannot be specifically attributed to a certain type of armour. One of them is *salih* سلیح (see the 10th-century epic *Šāhnāme*, Ferdōsi, 1995/1384:348)¹⁰⁷:

¹⁰³ Ibid.

¹⁰⁴ See the manuscript *Romuz-e Hamze* (1940/1359 Hegira:698) that was recollected in 15th-century.

¹⁰⁵ See the *Digital Lexicon of Dehxodā*.

¹⁰⁶ See the 18th-century manuscript *Tārix-e Ahmad Šāhi* (al-Jāmi, 2001/1379:395).

¹⁰⁷ For the usage of the term *salih* سلیح also see the 11th-century epic *Garšāsbnāme* (Asadi Tusi, 1938:1317:70).

سلیح سیاوش بیوشد به جنگ نندسر ز بیکان تیر خدنگ

Salih Siavaš bepušad be jang natarsad ze peykān-e tir-e xadang

Siavaš put on his armour for war [and therefore, he] will not be afraid of the arrowhead of the arrow made of poplar.

3. ANIMAL ARMOUR

Animal armour found in the Persian manuscripts can be divided into: II.1 *āyne* آینه and *pišband* پیشبند, II.2 *bargostovān* برگستوان, and II.3 *sineband* سینهبند.

3.1 ĀYNE آینه AND PIŠBAND پیشبند

The term *āyne* آینه used in reference to animal armour describes the chanfron protecting the forehead of a horse or an elephant. The term *āyne* آینه is usually used in combination such as *āyne-ye pulād bar pišāni-ye markab* آینه پولاد بر پیشانی مرکب (lit. the steel mirror/plate on the horse's forehead; steel chanfron).¹⁰⁸ At times the Persian manuscripts also reveal where the animal armour was made such as the expression *āyne-ye čini bar pišāni-ye asb* چینی بر پیشانی اسب (lit. the steel mirror/plate from China/Turkestan on the horse's forehead; steel chanfron).¹⁰⁹ Another synonym for the term *āyne* آینه is *pišband* پیشبند (chanfron).¹¹⁰ Some expressions reveal that it was made of steel as in the expressions *pišband-e fulād* پیشبند وفلاد (steel chanfron)¹¹¹ and *pišband-e fulād bar pišāni-ye markab* پیشبند فولاد بر پیشانی مرکب (lit. the steel front cover on the horse's forehead; chanfron).¹¹² Other expressions reveal were some chanfrons were made such as *pišband az āyne-ye čini* پیشبند از آینه چینی (chanfron made of Chinese steel plate/ steel plate from Turkestan)¹¹³, *pišband az āyne-ye farangi* پیشبند از آینه فرنگی (chanfron made of foreign steel plate)¹¹⁴, and *pišband az fulād-e čini* پیشبند از فولاد چینی (*Dārābnāme*) (chanfron made of Chinese steel/ steel from Turkestan).¹¹⁵

3.2 BARGOSTOVĀN

Generally, the term *bargostovān* برگستوان is used to refer to the horse armour (see the 10th-century epic *Šāhnāme*, Ferdōsi, 1995/1384:284).¹¹⁶ In combination this word is also used to refer to other types of animal armour such as *bargostovān-e pil* برگستوان پیل (an elephant armour).¹¹⁷ Dehxodā explains that *bargostovān* برگستوان is normally used to refer to horse and

¹⁰⁸ See the 15th-century manuscript *Dārābnāme* (Beiçami, 2002/1381:343; vol.1).

¹⁰⁹ See the 15th-century manuscript the 15th-century manuscript *Dārābnāme* (Beiçami, 2002/1381:452; vol.1).

¹¹⁰ See the 15th-century manuscript *Dārābnāme* (Beiçami, 2002/1381:545; vol. 1).

¹¹¹ See the 15th-century manuscript *Dārābnāme* (Beiçami, 2002/1381:409; vol.1).

¹¹² See the 15th-century manuscript *Dārābnāme* (Beiçami, 2002/1381:319; vol.1).

¹¹³ See the 15th-century manuscript *Dārābnāme* (Beiçami, 2002/1381:545; vol. 1).

¹¹⁴ See the 15th-century manuscript *Dārābnāme* (Beiçami, 2002/1381:640; vol.2).

¹¹⁵ See the 15th-century manuscript *Dārābnāme* (Beiçami, 2002/1381:529; vol.1).

¹¹⁶ For the usage of the term *bargostovān* برگستوان also see the 10th-century epic *Goštāsbnāme* (Daçiqi Tusi, 1994/1373:76), the 11th-century epic *Garšāsbnāme* (Asadi Tusi, 1938:1317:45), the 11th-century manuscript *Tārix-e Beyhaqi* (Beyhaqi, 2004/1383:69), *Qazaliāt* (Sa'di, 2005/1383:315), the 12-century manuscript *Ādāb al-Harb va al-Šojā-e* (Mobāarak Šāh Faxr-e Modabbār, 1967/1346:147), the 13th-century manuscript *Zaratoštnāme* (Bahrām Pajdō, 1960/1338:75), the 15th-century manuscript *Zafarnāme* (Yazdi, 1957/1336a:254), and the 19th-century manuscript *Rostam al Tavārix* (Āsef, 2003/1382:78).

¹¹⁷ See the manuscript *Dārābnāme-ye Tarsus* (Tarsusi, 1977/2536:161, vol. 2) that is based on old Pahlavi texts.

elephant armour and for humans the terms *zereh* زره, *jōšan* جوشن, and *qazāgand* قزاگند are used, but *bargostovān* برگستوان is sometimes used to refer to human armour as well. Also note that an armoured horse is described as *asb-e bargostovān pušide* اسب برگستوان پوشیده.¹¹⁸ There is also a term describing an elephant clad in mail armour such as *fil-e zerehpūš* فیل زرهپوش (an elephant in mail armour).¹¹⁹

Persian manuscripts report of different materials for making a horse armour such as a) iron/steel such as the expressions *bargostovān-e āhanin* برگستوان آهنین (an iron horse armour)¹²⁰ and *bargostovān az āyne-ye čini* برگستوان از آینه چینی (a horse armour made of [steel/iron] mirror/plates from China/Turkestan).¹²¹ In this respect, Persian manuscripts also report of iron/steel plates used in the horse armour as in the expression *qeybe-ye bargostovān* غیبه برگستوان;¹²² b) hide such as the expressions *bargostovān az pust-e palang* برگستوان از پوست پلنگ (a horse armour of leopard hide)¹²³ and *bargostovān-e palang* برگستوان پلنگ (a horse armour of leopard hide).¹²⁴ Perhaps it should be horse armour covered with leopard hide (i.e. the leopard hide is only a decorative cover and not the functional part of the armour) as leopard hide is not, unlike buffalo or rhino hide, sturdy and tough enough to serve as an armour on its own or the expression *bargostovān az xaz* برگستوان از خز (horse armour made of fur)¹²⁵, and c) fabric, such as the expression *bargostovān-e zarbaft-e čin* برگستوان زربفت چین (horse armour decorated with gold brocade from China/Turkestan).¹²⁶ A horse armour made of hide was also called *badanče az čarm-e gāvmiš* بدنچه از چرم گاو میش.¹²⁷

Some expressions also describe where a *bargostovān* برگستوان was made, such as *bargostovān-e čin* برگستوان چین (horse armour from China/Turkestan)¹²⁸ and *bargostovān-e rumi* برگستوان رومی (a Roman/Anatolian horse armour).¹²⁹

There are also expressions that describe the different variance of colors of *bargostovān* برگستوان such as *bargostovān-e banafš* برگستوان بنفش (a purple horse armour)¹³⁰, *bargostovān-e kabud* برگستوان کبود (a sky-blue horse armour)¹³¹, *bargostovān-e la'lrang* برگستوان لعلرنگ (a horse armour with the color of a ruby or a garnet)¹³², *bargostovān-e rangi* برگستوان رنگی (a colored horse armour)¹³³, *bargostovān-e sabz* برگستوان سبز (a green-colored horse armour)¹³⁴, and *bargostovān-e siyāh* برگستوان سیاه (a black-colored horse armour).¹³⁵ Other expressions describe different types of gold-inlaying or gilding on *bargostovān* برگستوان armour, such as *bargostovān-e zar* برگستوان زر (lit. a golden horse armour; a gilded horse armour)¹³⁶ and *bargostovān-e zarandud* برگستوان زراندود (gold-inlaid/gold-overlaid horse armour).¹³⁷ There are

¹¹⁸ See the 19th-century manuscript *Rostam al Tavāriḫ* (Āsef, 2003/1382:120).

¹¹⁹ See the 18th-century manuscript *Tāriḫ-e Ahmad Šāhi* (al-Jāmi, 2001/1379:408).

¹²⁰ See the 12-century manuscript *Ādāb al-Harb va al-Šojā-e* (Mobārak Šāh Faxr-e Modabbar, 1967/1346:252).

¹²¹ See the 15th-century manuscript *Dārābnāme* (Beiqami, 2002/1381:293; vol.1).

¹²² See the *Digital Lexicon of Dehxodā*.

¹²³ See the 15th-century manuscript *Dārābnāme* (Beiqami, 2002/1381:623; vol.1).

¹²⁴ See the 15th-century manuscript *Zafarnāme* (Yazdi, 1957/1336a:362).

¹²⁵ See the 11th-century anthology *Dīvān-e Mas'ud Sa'd Salmān* (Sa'd Salmān, 1995/1374:381).

¹²⁶ See the 11th-century epic *Garšāsbnāme* (Asadi Tusi, 1938:1317:205).

¹²⁷ See the 10th-century manuscript *Abu Moslemnāme* (Tartusi, 2001/1380:206; vol. 3).

¹²⁸ See the 11th-century epic *Garšāsbnāme* (Asadi Tusi, 1938:1317:331).

¹²⁹ See the manuscript *Dārābnāme-ye Tarsusi* that is based on old Pahlavi texts (Tarsusi, 1977/2536, vol. 2).

¹³⁰ See the 11th-century epic *Garšāsbnāme* (Asadi Tusi, 1938:1317:101).

¹³¹ See the 15th-century manuscript *Dārābnāme* (Beiqami, 2002/1381:281; vol.2).

¹³² See the 11th-century epic *Garšāsbnāme* (Asadi Tusi, 1938:1317:444).

¹³³ See the 10th-century manuscript *Abu Moslemnāme* (Tartusi, 2001/1380:199; vol. 4).

¹³⁴ See the 15th-century manuscript *Dārābnāme* (Beiqami, 2002/1381:319; vol.1).

¹³⁵ See the 15th-century manuscript *Dārābnāme* (Beiqami, 2002/1381:343; vol.1).

¹³⁶ See the 10th-century manuscript *Abu Moslemnāme* (Tartusi, 2001/1380:458; vol. 3).

¹³⁷ See the 10th-century manuscript *Abu Moslemnāme* (Tartusi, 2001/1380:206; vol. 3).

also terms that describe an armoured horse or elephant such as *bargostovāndār* برگستوان دار (an armoured horse or elephant)¹³⁸, *bargostovānkeš* برگستوان کش (an armoured horse or elephant)¹³⁹, and *bargostovānvar* برگستوان ور (an armoured horse or elephant).¹⁴⁰ A horse armour which cannot be penetrated by spear was called *lahif* لحیف or *lehif* لحیف.¹⁴¹ A horse armour made of quilted padding stuffed with straw was called *jōšan-e hasiri satar* جوشن حصیری ستر.¹⁴²



Figure 22. A miniature from a manuscript of *Šāhnāme-ye Tahmāspi* dated 944 Hegira (1537 C.E.) shows Bahrām Čubin killing Sāveh Sāh in the battle. Note the *bargostovān* of the horses (Courtesy of Rezā Abbāsi Museum).

¹³⁸ See the 11th-century epic *Garšāsbnāme* (Asadi Tusi, 1938:1317:101).

¹³⁹ See the *Digital Lexicon of Dehxodā*.

¹⁴⁰ Ibid.

¹⁴¹ See the 12th-century manuscript *Šarafnāme* (Nezāmi Ganje'i, 2007/1385a:114).

¹⁴² See the 14th-century manuscript *Zafarnāme* (Mostufi, 1999/177:443).377:443).

3.3 SINEBAND سینه‌بند

The plate that protected the horse chest was called *sineband-e asb* سینه‌بند اسب.¹⁴³

4. SUMMARY

Different types of armour can be generally divided into human armour and animal armour. Human armour consisted of different parts. In this summary, I will name the most important and common types. The padding which was worn under the armour was called *xaftān* خفتان. Sometimes this padding was called *qazāgand* قزاگند. However, one should note that *qazāgand* قزاگند was an armour in its own right. The *zereh* زره (mail armour) was worn above the padding. The *garibān* گریبان was a type of mail armour that protected the neck but also provided extra protection for the upper breast. Then a piece of armour named *čāhrāyne* چهارآینه was worn over the mail armour. The *čāhrāyne* چهارآینه consisted of four steel plates, two for protecting the chest and back areas (breast- and backplates) and two for protecting the sides (side plates). At times instead of the combination of *zereh* زره and *čāhrāyne* چهارآینه, a *jōšan* جوشن was worn which was a type of mail-and-plate armour and some types were made of hide. The *jōšan* جوشن as a type of mail-and-plate armour was similar to *tanure* تنوره insofar as both are made from mail and iron/steel plates; however, the iron/steel plates (*qeybe* غیبه) of *jōšan* جوشن are shorter/smaller than the ones used in *tanure* تنوره. A pair of *bāzuband* بازوبند was used in Iran for protecting the forearms during combat. The *kolāhxud* کلاه خود was used to protect the head of the warriors. Sometimes instead of a *kolāhxud* کلاه خود, a *zerehkolāh* زره‌کلاه (mail coif) was used. The *rānband* ران‌بند was the thigh protector. Animal armour consisted of *āyne* آینه and *pišband* پیش‌بند to protect the forehead of an animal, *bargostovān* برگستوان to protect the body, and *sineband* سینه‌بند to protect the chest.

(Endnotes)

For the phonetic transcription of the Persian words, the system of Persian transcription in *Dā'eratolmaāref-e Bozorg-e Eslāmi* [The Great Islamic Encyclopaedia] by Mohammad Hasan Semsār (1997/1377) published in Tehran is used. The following table shows the table of the phonetical alphabet used for the New Persian transcriptions:

Phonetics of the New Persian used in the lexicon		
ā	The sound ā as in the English word jar	The sound ā as in the Persian word آب <i>āb</i>
a	The sound a as in the English word after	The sound a as in the Persian word اسب <i>asb</i> .
b	The sound b as in the English word boy	The sound b as in the Persian word بند <i>band</i>
č	The sound č as in the English word chair	The sound č as in the Persian word چوگان <i>čōgān</i>
d	The sound d as in the English word direction	The sound d as in the Persian word داروغه <i>dāruqe</i>
e	The sound e as in the German word Ersatz	The sound e as in the Persian word احسان <i>ehsān</i>
f	The sound f as in the English word future	The sound f as in the Persian word فلاخن <i>falāxon</i>
g	The sound g as in the English word goat	The sound g as in the Persian word گردن <i>gardan</i>
h	The sound h as in the English word home	The sound h as in the Persian word هامون <i>hāmūn</i>

¹⁴³ See the *Digital Lexicon of Dehxodā*.

i	The sound long i as in the English word need	The sound long i as in the Persian word <i>Irān</i> ایران
j	The sound j as in the English word jacket	The sound j as in the Persian word <i>jāsus</i> جاسوس
ĵ	The sound ĵ as in the French word jambe	The sound ĵ as in the Persian word <i>ĵupin</i> ژوپین
k	The sound k as in the English word key	The sound k as in the Persian word <i>kārd</i> کارد
l	The sound l as in the English word lock	The sound l as in the Persian word <i>lašgar</i> لشگر
m	The sound m as in the English word middle	The sound m as in the Persian word <i>mār</i> مار
n	The sound n as in the English word nobility	The sound n as in the Persian word <i>namak</i> نمک
o	The sound o as in the German word offen	The sound o as in the Persian word <i>oqāb</i> عقاب
ö	A sound combination of o and u	The sound ö as in the Persian word <i>gōhar</i> گوهر
p	The sound p as in the English word parish	The sound p as in the Persian word <i>par</i> پَر
q	The sound q as in the French word recherché	The sound q as in the Persian word <i>qame</i> قمه
r	The sound r as in the English word relief	The sound r as in the Persian word <i>raxš</i> رخش
s	The sound s as in the English word sound	The sound s as in the Persian word <i>sātur</i> ساطور
š	The sound š as in the English word shop	The sound š as in the Persian word <i>šamšir</i> شمشیر
t	The sound t as in the English word teacher	The sound t as in the Persian word <i>tabar</i> تَبَر
u	The sound u as in the German word Urheber	The sound u as in the Persian word <i>āhanpuš</i> آهن‌پوش
v	The sound v as in the English word verse	The sound v as in the Persian word <i>velāyat</i> ولایت
x	The sound x as in the Spanish word jamón	The sound x as in the Persian word <i>xāne</i> خانه
y	The sound y as in the English word yard	The sound y as in the Persian word <i>yekrān</i> یکران
z	The sound z as in the English word zebra	The sound z as in the Persian word <i>zāj</i> زاج

5. BIBLIOGRAPHY

Primary sources

- Ālam Ārāye Šāh Tahmāsp* (1991/1370). *Zendegani Dāstāni Dovomin Padešāh-e Doreye Safavi* [The Narrative Biography of the Second Safavid King]. Edited and annotated by Iraj Afšār. Tehrān: Entešārāt-e Donyāye Ketāb.
- Āsef, M. H. (2003/1382). *Rostam al Tavārix: Salatin-e Selseleye Safaviye, Afšāriye, Zandiye va Qājāriye*. [Rostam al Tavārix: The Sultans of Safavid, Afšārid, Zand and Qājār]. Annotated by Azizollah Alizādeh. Tehrān: Entešārāt-e Ferdos.
- Afif, Š. (2007/1385). *Tārix-e Firuzšāhi* [The History of Firuzšāhi]. Corrected by Velāyat Hosseyn. Introduction by Dr. Mohammad Reza Nasiri. Tehrān: Entešārāt-e Asātir.
- Al-Kāteb al-Rajāni, F. (2004/1383). *Samak Ayyār*. Annotated by Seyyed Ali Šahāri. 2 Vols. Tehrān: Sedāy-e Moāsser.
- Al-Madani Al-Tatavi, A. (Unspecified Date). *Farhang-e Rašidi* [The Lexicon of Rašidi]. [Written in 1064 Hegira (1654 C.E.)]. Four Volumes. Tehrān.
- Anjavi Širāzi, M. *Farhang-e Jahānigiri* [The Lexicon of Jahānigiri]. Written in 1302 Hegira (1884 C.E.).
- As'ad Gorgāni, F. (1970:1349). *Veys va Rāmin*. Tehrān: Entešārāt-e Bonyād-e Farhang Irān.
- Asadi Tusi, H. (1938:1317). *Garšāsbnāme*. Annotated by Habib Yaghmai. Tehrān: Ketābfuruši va Čāpxāne Baruxim.
- Asadi Tusi, A. (1986/1365). *Loqat-e Fors*. Annotated by Fath Mojtabāyi and Ali Ašraf Sādeqi. [Written in 5th Century Hegira (11th Century C.E.)]. Tehrān: Xārazmi.
- Attār Neišāburi, A. (1993/1372). *Manteq al-Teyr* [Conference of the Birds]. Annotated by Seyyed Sadeq Goharin. Tehrān: Šerkat-e Entešārāt-e Elmi va Farhangi.
- Bahrām Pajdō, Z. (1965/1343). *Ardāvirāfnāme* [The book of Ardāvirāf]. Annotated by Rahim Afifi. Mashhad: Čāpxāne-ye Dānešgāh Mašhad.

- Bahrām Pajdō, Z. (1960/1338). *Zaratoštnāme* [The Book of Zoroaster]. Annotated by Mohammad Dabir Siyāqi. Tehrān: Ketābxāne-ye Tahvari.
- Beyhaqi Dabir, A. (2004/1383). *Tārix-e Beyhaqi* [The History of Beyhaqi]. Annotated by Ali Akbar Fayyaz. Mašhad: Danešgāh Ferdōsi Mašhad.
- Beiqami, M. (2002/1381). *Dārābnāme*. Corrected by Zabiollāh Safā. Corrected and Annotated by Zabiollah Safa. Two Volumes. Tehrān: Šerkat-e Enteshārāte Elmi va Farhangi.
- Dāstān-e Hosseyn Kord-e Šabestari [*The Story of Hosseyn Kord Šabestari*] (2003/1382). Annotated by Abbas Šabgāhi Šabestari. Tehrān: Moaseseye Enteshārāt-e Farahāni.
- Daqiqi Tusi, A. (1994/1373). *Goštāsbnāme be Enzemām-e Farhang-e Basāmadi* [*Goštāsbnāme* together with the Basamadi Lexicon]. Annotated by Mohammad Javād Šariat. Tehrān: Enteshārāt Asātid.
- Eskandar Beig Torkamān (2003/1382). *Tārix-e Ālam Ārāye Abbāsi* [The History of *Ālam Ārāye Abbāsi*]. Edited and annotated by Iraj Afšār. 2 volumes. Tehrān: Enteshārāt-e Amir Kabir.
- Esterābādi, M. (1991/1370). *Tārix-e Jahāngošāy-e Nāderi* [The History of the World Conquest of Nader]. A Copy of the Illustrated Manuscript of 1757. Introduction by Abdolali Adib Barumand. Tehrān: Soruš.
- Ferdōsi, H. A. (1995/1384). *Šāhnāme Ferdōsi (bar Asās-e Nosxe-ye Mašhur-e be Čap-pe Mosko)* [*Šāhnāme Ferdōsi* (based on the version of the Manuscript known as published in Moscow)]. Tehrān: Enteshārāt-e Alam.
- Hakim, M. (Unspecified date). *Kolijat-e Haft Jeldi Eskandarnāme: Sahebgarān Zowalgarenein Eskandar ben Dārāb ben Bahman ben Esfandiyār Ruintan* [The Complete Seven Volumes of *Eskandarnāme: Sahebgarān Zowalgarenein Alexander, the son of Dārāb, the son of Bahman, the son of the Invulnerable Esfandiyār*]. From the Series of Legends of Oriental *Pahlavān*. Tehrān: Enteshārāt-e Mohammad Hasan Sar Elmi.
- Jonābodī, M. (1999/1378). *Rozat al-Safaviye (Tārix-e Doreye Safaviye)* [Rosat al-Safaviye the History of Safavid Era]. Annotated by Qolāmrezā Tabātabā'i Majd. Tehrān: Enteshārāt va Čāp-e Danešgāh-e Tehrān.
- Manučehri Dāmḡāni, A. (1983/1362). *Aš 'ār-e Manučehri Dāmḡāni* [The Poems of Manučehri Dāmḡāni]. Annotated by Mohammad Dabir Siyāqi. Tehrān: Enteshārāt-e Amir Kabir.
- Marvi Vazir Marv, M. (1985/1374). *Ālam Ārāye Nāderi*. Annotated by Dr. Mohammad Amin Riyāhi. Three Volumes. Tehrān: Enteshārāt Elmi.
- Mobārak Šāh Faxr-e Modabbar, M. (1967/1346). *Ādāb al-Harb va al- al-Šojā-e* [The Customs of War and Bravery]. Annotated by Ahmad Soheili Xānsari. Tehrān: Eqbāl.
- Mohammad Pādešāh (1956/1335). *Farhang-e Ānendrāj* [The Lexicon of *Ānendrāj*]. Written by Mohammad Pādešāh known as Šād with the Assistance of his Two Brothers in India in 1306 Hegira (1888 C.E.). Seven Volumes. Under the Auspices of Mohammad Dabir Siyāqi. Tehrān: Ketābxāne-ye Xayyām.
- Molavi, M. (2007/1385). *Masnavi Ma'navi*. Edited by Reynold A. Nicholson. Tehrān: Enteshārāt Hermes.
- Nāser Xosrō Qobādiyāni, A. (1985/1363). *Safarnāme-ye Nāser Xosrō* [The Journey Accounts of Nāser Xosrō]. Annotated by Mohammad Dabir Siyāqi. Tehrān: Ketābforuši Zavvār.
- Nafisi, A. (1964/1343). *Farhang-e Nafisi* [Lexicon of Nafisi]. [Written during the Qājār Period]. Five Volumes. Tehrān: Ketābforuši Xayyām.
- Nezāmi Ganje'i, N. (2007/1385a). *Šarafnāme*. Annotated by Hasan Vahid Dastgardi. Introduction by Sa'id Hamidiyān. Tehrān: Našr-e Afkār.
- Nezāmi Ganje'i, N. (1999/1377). *Haft Peykar*. Annotated by Hasan Vahid Dastgardi. Introduction by Sa'id Hamidiyān. Tehrān: Našr-e Qatre.
- Onsori Balxi, A. (1990/1369). *Aš 'ār-e Onsori Balxi* [Poems of Onsori Balxi]. Moqaddame [Introduction] by Mohammad Dabir Siyāqi. Tehrān: Enteshārāt-e Amir Kabir.
- Resāle-ye Avval [First Treatise] (1985/1374). In: Ā'in Qalandari: Moštamel bar Čāhr Resāle dar Bāb-e Qalandari, Xāksāri, Ferqe-ye Ajam va Soxanvari [The Rules and Doctrines of Qalandari: Including Four Treatises with the Topics of Qalandari, Xāksāri, Ferqe-ye Ajam, and Soxanvari]. Annotated by Seyyed Abutāleb Mir Ābedini and Mehran Afšāri. Tehrān: Enteshārāt-e Farāravān, pp. 73-213.
- Resāle-ye Čāhrom [Fourth Treatise] (1985/1374). In: Ā'in Qalandari: Moštamel bar Čāhr Resāle dar Bāb-e Qalandari, Xāksāri, Ferqe-ye Ajam va Soxanvari [The Rules and Doctrines of Qalandari: Including Four Treatises with the Topics of Qalandari, Xāksāri, Ferqe-ye Ajam, and Soxanvari].

- Annotated by Seyyed Abutaleb Mir Ābedini and Mehran Afšāri. Tehrān: Entešārāt-e Farāvān, pp. 333-457.
- Romuz-e Hamze [Secrets of Hamze] (1940/1359 Hegira:224). Handwritten by Mohammad Ali Nāme. Tehrān: Šerkat-e Čāp-e Ketāb.
- Rudaki, A. (2004/1382). *Divān-e Rudaki Samarqandi* [Antology of Rudaki Samarqandi]. Based on the Copy of Sa'id Nafisi. Tehrān: Entešārāt-e Negāh.
- Sa'd Salmān, M. (1995/1374). *Divān-e Mas'ud Sa'd Salmān* (The Anthology of Mas'ud Sa'd Salmān) Annotated by Rašid Yāsemi. Tehrān: Mo'assese-ye Entešārāt-e Negāh.
- Sa'di, M. A. (2005/1383). *Kolīyāt-e Sa'di* [The Complete Works of Sa'di]. Annotated by Hasan Anvari. Tehrān: Našr-e Qatre.
- Sabā, F. *Šahanšāhnāme*. Handwritten Manuscript. Mashad: Astān-e Qods-e Razavi.
- Šabānkāre'i, M. (2002/1381). *Majma' al-Ansāb* (Nimeye Aval). Edited by Mir Hashem Mohaddes. Tehrān: Amir Kabir.
- Širuye Nāmdār (2005/1384). Tehrān: Entešārāt-e Qoqnōs.
- Tārix-e Sistān (1992/1381). [The History of Sistān]. Annotated by Malekalšoarā Bahār. Tehrān: Donyāye Ketāb.
- Tabrizi, M. (1951/1330). *Borhān-e Qāte* [The Ultimate Reasoning]. [This book was written in Hyderabad in 1062 Hegira (1652 C.E.)]. Annotated by Mohammad Mo'in. Four Volumes. Tehrān.
- Tahvildār Esfahāni, H. (1964/1342). *Jogrāfiyā-ye Esfahān: Jogrāfiyā-ye Tabi'i va Ensāni va Āmār-e Asnāf-e Šahr* [The Geography of Isfahan: the Natural and Human Geography and the Statistics on Crafts from the City]. Annotated by Manouchehr Sotude. Tehrān: Čāpxāne-ye Dānešgāh-e Tehrān.
- Tarsusi, A. (1977/2536). *Dārābnāme-ye Tarsusi*. Annotated and Corrected by Zabiholla Safā. Tehrān. Bongāh-e Tarjome va Našr-e Ketāb.
- Tartusi, A. (2001/1380). *Abu Moslemnāme*. Annotated by Hosseyn Esmā'ili. Four Volumes Tehrān: Entešārāt-e Mo'in, Našr-e Qatre, Anjoman-e Irānšenāsi dar Irān.
- Xonji Esfahāni, F. (2003/1382). *Tārix-e Ālam Āryā-ye Amini: Šarh-e Hokmrāni Salātin-e Āq-Quyunlu va Zohur-e Safaviān* [The History of Ālam Āryā-ye Amini: Exposition of Sultans Aq-quyunlu's Ruling and Appearance of Safavid]. Qarn-e Nohom va Dahom Hejri [The Ninth and the Tenth Century Hegira] Edited by Mohammad Akbar Ašiq. Tehrān: Markaz-e Našr-e Mirās-e Maktub.
- Yazdi, M. (1957/1336). *Zafarnāme (Tārix-e Umumi Irān dar Doreye Teimuriyān)* [Zafarnāme (The General History of Iran during Timurid Period)]. Corrected and Annotated by Mohammad Abbāsi. Tehrān: Amir Kabir.

Secondary Iranian Sources

- Farahvaši, B. (2002a/1381). *Farhang Zaban Pahlavi* [The Lexicon of Pahlavi Language]. Tehrān: Entešārāt-e Dānešgāh-e Tehrān.
- Farahvaši, B. (2002b/1381). *Farhang Farsi be Pahlavi* [The Lexicon of Persian into Pahlavi]. Tehrān: Entešārāt-e Dānešgāh Tehrān.
- Ma'tufi, A. (1999/1378). *Tārix-e Čāhr Hezār Sāle-ye Arteš Irān: Az Tamaddon-e Ilām Tā 1320 Xoršidi, Jang-e Irān Va Arāq* [The Four-thousand-year History of the Iranian Military: From the Elamite Civilization to the Year 1320, The Iran and Iraq War]. Two volumes. Tehrān: Entešārāt-e Imān.
- Romanowsky, D. (1967c/1346). Tārixče-ye Aslahe-ye Sard dar Irān [The Short History of Cold Weapons in Iran]. [Part 3]. In: *Majjale-ye Barrasihāye Tāixi* [Journal of Historical Research], Number 6, Year 2, pp. 89–112.
- Romanowsky, D. (1967b/1346). Tārixče-ye Aslahehā-ye Sard dar Irān [The Short History of Cold Weapons in Iran]. [Part 2]. In: *Majjale-ye Barrasihāye Tāixi* [Journal of Historical Research], Number 5, Year 2, pp. 76–100.
- Romanowsky, D. (1967a/1346). Tārixče-ye Aslahehā-ye Sard dar Irān [The Short History of Cold Weapons in Iran]. In: *Majjale-ye Barrasihāye Tāixi* [Journal of Historical Research] [Part 1], Number 3-4, Year 2, pp. 263–280.
- Semsār, M. H. (1997/1377). *Dāeratolmaāref-e Bozorg-e Eslāmi* [The Great Islamic Encyclopaedia]. The Eight Volume. Edited by Kazem Musavi Bojnordi. Tehrān: Markaz-e Dāeratolmaāref-e Bozorg-e Eslāmi.

- Šahidi, E. (2001/1380). *Ta'ziyeh va Ta'ziyexāni: Az Āqāz Tā Pāyān Doreye Qājār Dar Tehrān [Ta'ziyeh and Ta'ziyexāni in Tehran: Research on the Shi'a Indigenous Drama of Ta'ziyeh from the Beginning to the End of Qajar Era]*. Tehran: Khojaste.
- Zokā, Y. (1971/1350). *Arteše Šāhanšāhi Iran Az Kuroš Ta Pahlavi [The Royal Army of Iran from Kurosh to Phalavi]*. Tehrān: Čāpxāne-ye Vezārat-e Farhang va Honar.

Secondary International Sources

- Chodynski, A. (ed.) (2000). *Persian and Indo-Persian Arms and Armour of 16th - 19th Century from Polish Collections*. Malbork: Muzeum Zamkowe w Malborku.
- Grancsay, S. V. (1957). *The New Galleries of Oriental Arms and Armour*. The Metropolitan Museum of Art (New York) N.S. 16: 241–256.
- Harper, P. O. (1985). The Ox-headed Mace in Pre-Islamic Iran. *Acta Iranica*, 24. 2ieme série, vol. X. Papers in Honour of Mary Boyce: 247-259.
- Ibn-Munqidh, U. (1987). *An Arab-Syrian Gentleman and Warrior in the Period of the Crusades: Memoirs of Usamah Ibn-Munqidh*. Pinceton: Princeton University Press.
- Kobylnski, L. (2000). Persian and Indo-Persian Arms. In: Antoni Romuald Chodynski (ed.). *Persian and Indo-Persian Arms and Armour of 16th–19th Century from Polish Collections*. Malbork: Muzeum Zamkowe w Malborku, pp. 57–74.
- Moshtagh Khorasani, M. (2006). *Arms and Armour from Iran: the Bronze Age to the End of the Qajar Period*. Tübingen: Legat Verlag.
- Nicolle, D. (2002). Jawshan, Cuirie and Coats-of-Plates: An Alternative Line of Development for Hardened Leather Armour. In: David Nicolle (ed.). *A Companion to Medieval Arms and Armour*. Woodbridge: The Boydell Press, pp. 179-221.
- (1998) *Armies of the Caliphates 862 - 1098*. Oxford: Osprey Publishing Ltd.
- Zeller, R. and Rohrer, E. F. (1955). *Orientalische Sammlung Henri Moser-Charlottenfels: Beschreibender Katalog der Waffensammlung*. Bern: Kommissionsverlag von K.J. Wyß Erben AG.

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