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Transcaucasian Iron Age Metal Horse Bits

Manuel Castelluccia

ISMEO, Rome

Abstract

The goal of the present study is to present a general catalogue followed by a discussion of metal horse bits found in Transcaucasia, mostly from the Iron Age. Starting from the earliest evidence dating to the last stage of the Late Bronze Age, all types of metal bits attributable to indigenous cultures are considered. Urartian and Scythian metal bits are not included, since they have already been widely studied, thus keeping the range of this analysis from the Late Bronze Age to the Achaemenid period.

Keywords

Metal Horse Bits, Cavalry, Iron Age, Transcaucasia

Tracking the development of the metal horse bits in the Near East is rather difficult because of the paucity of reliable archaeological evidence. This lack is moreover connected with an important question, that is the timing of the introduction and domestication of the horse. Despite the volumes of study devoted to this matter, the conclusions are far from satisfactory. Sources, numerous and various, are often ambiguous, elusive and unclear.

It is now widely thought that most Early and Middle Bronze Age iconographic images showing equines in reality represent onagers, which were used for pulling transport or ceremonial chariots. A horse used for riding or pulling a chariot does not necessarily require the use of a bit, since the animal can be ridden bare-back, and controlled with a whip and ropes fixed around the neck.

During the Late Bronze Age a significant innovation seems to have occurred in Mesopotamian warfare. Starting probably within the Mitanni kingdom, the use of war chariots gradually spread in the armies of the Mesopotamian kingdoms and Egypt, as is well shown in numerous icono-

graphic representations. Such a military innovation required a parallel technological development: the use of horse bits became necessary in order to give sufficient maneuverability to the chariot.

Despite numerous excavations, metal horse bits of the period are very rare, being limited to a few exemplars discovered mainly in Egypt (Tell el-Amarna/Akhetaton) and Syria (Ras Shamra/Ugarit). This rarity probably depends on the fact that bits were still mainly made of animal horns. Moreover, at the end of the second millennium B.C., iconographic representations also constitute the first evidence of the progressive introduction of the mounted horse.

The beginning of the Iron Age in the mountainous highlands surrounding Mesopotamia saw many changes in social organisation and material culture. Besides the introduction of iron, the use of which actually spread only from the 10th-9th century onwards, important developments included the increase and spread of cyclopean fortresses and the strong growth of bronze-working industries.

Another important innovation was surely the introduction of mounted cavalry, which progressively replaced the use of war-chariots. In the mountainous area of the Iranian and Armenian highlands horse burials, often associated with those of warriors, are attested since the 13th-12th century B.C. The spread of mounted cavalry likewise required a development in technology: the control of horses by bits.

A bit is part of horse tack, which is placed in the mouth of an equine in order to assist the rider's communication with the animal by means of lever action. The bit rests on the lower jaw in an interdental region (i.e. where there are no teeth). Metal horse bits have been the subject of several important studies. The most complete, although now outdated, was carried out by Potratz (1966), while other scholars have studied several bits generally supposed to have come from Luristan or other sites in the Iranian plateau (Moorey 1971: 101-128; Muscarella 1988). Hundreds of bits are generally attributed to the corpus of the so-called "Luristan Bronzes". These studies have focused mainly on the artistic decorations, often making comparisons for chronological purposes with Neo-Assyrian art. Unfortunately for most of these pieces, as for most of the Luristan corpus, no contexts of archaeological provenance are available, and thus doubts concerning the authenticity of various items might be justified. At the

present only a handful of metal bits of documented provenance are reported from Luristan, while a few others have been confiscated by local authorities after being illegally excavated, or lack sufficient documentation concerning their origins (Haerinck/Overlaet 2004: 54). Despite this situation, recent studies carried out by Haerinck and Overlaet (Overlaet 2003; Haerinck/Overlaet 1998; idem 1999, idem 2004) who gathered together and analysed all such material from the Belgian archaeological expeditions led by Vanden Berghe, have given a better idea of the chronology of the objects from Luristan, changing some earlier interpretations. Apart from the Luristan items, metal horse bits from the Iranian plateau are rare and consist mostly of items found in Marlik (Negahban 1996), Hasanlu (Muscarella 1988: 64-66), and Tepe Sialk (Ghirshman 1939: pl. 25).

Early Iron Age horse burials are also scarce in the Iranian plateau. Despite the presence of horse harnesses and bits, only one clear horse burial has been found in Luristan, in Tepe Baba Jan (Goff 1969: 123-126, figs. 6, 7, pl. IIc); the archaeological evidence is thus limited to some burials from Marlik (Negahban 1996: 23, 24; 305-307, fig. 35, pl. 14a, 135), Hasanlu (Hakemi/Rad 1950; Dyson 1965: 208-209), and Dinkha Tepe (Muscarella 1974: 78, 79).

On the other hand, a large quantity of documented metal bits has been found in the Caucasus area where thousands of graves were investigated, especially during the Soviet period. Despite the rich records available, they have been only partially studied (Picchelaury 1997: pls. 91-94). North Caucasian examples, as well as late Scythian types, are better known, though, thanks to some specific studies dedicated to the subject (Dietz 1999; Ivantchik 2001; Reinhold 2007: 61-67), Transcaucasian archaeological discoveries have yielded numerous metal bits, which will be here divided according to their specific features. All metal bits from the Caucasus belong to the "flexible" category, being jointed mouthpieces made of two separate rods joined at the centre by rings; this is by far the most widespread group. Generally only the bits attributed to Luristan have a rigid mouthpiece.

SIMPLE PLAIN BITS

This type of bit consists of two rods joined loosely at their inner ends by intersecting loops. The outer ends feature two larger rings through which

passed the reins. Sometimes they are found combined with cheekpieces, to which they were joined by rope or leather thongs, but in most cases they were used without. The bits are cast, but the central connecting loops are added subsequently. The total length of the bits is usually about 20-25 cm, with connecting rings 3-5 cm in diameter. Bits of this type come from many sites and seem to have been used for quite a long period. The oldest item is apparently that found in the burial-ground of Artik, in the Shirak province of Armenia, which dates to the 15th -14th century B.C. (Fig. 1a). To the early Iron Age (ca. 13th-12th century) also date the pieces from the Beshtasheni and Treli cemeteries in central Georgia, which are accompanied by elements in shape of a ring with a short flange bent back and attached to the main ring of the bit (Fig. 1b, d), and from Kalakent Paradiesfestung in western Azerbaijan (Fig. 1c).

Simple bits are attested also from the following centuries. Other items were found by de Morgan in Sadachlo (northern Armenia), probably of about 9th-8th century date (Fig. 1f), and Narekvavi (Fig. 1e, g), in central Georgia, dating to the 7th-6th century B.C. These bits are mostly made of bronze, but at the site of Melaani, in Kakheti province, Georgia, various bronze and iron bits were discovered (Fig. 1i) along with a hoard of numerous metal objects.

Apart from this simple type, some variations are found. In Grave 433, Artik, two horse bits were found with unusual features (Fig. 1l). The mouthpieces are thick and rectangular in cross-section, finishing with an outer disc and semicircular-shaped ends.

SIMPLE TWISTED BITS

The main feature of this type consists of the twisted decoration of the rods, which seem to have been cast that way rather than altered manually. Several examples of this type are known from neighbouring areas (Muscarella 1988: 64); they may be of bronze or iron and are usually later in date (Iron Age II-III).

This type is, however, rarely encountered in Transcaucasia. Two items, one of which was associated with independent cheekpieces, were recovered in the area of Kalakent (western Azerbaijan) in funerary contexts both of 12th -11th century B.C. date (Fig. 2a, b). Another piece comes from the fortuitous find of a destroyed grave in Spandaryan, in Širak province,

Armenia (Fig. 2d). It has thin rods, similar to the item from Kalakent; the context is dated by Piliposyan (1999: pl. 57) to the 11th-9th century B.C.

A further two examples were found in Kurgan II in Mingēčaur, north-western Azerbaijan. They both have short rods (Fig. 2c), in one case very thin; it is not clear from the illustration whether or not the larger rod has a twisted decoration. These are later in date, probably 6th-5th century B.C.

SIMPLE PLAIN BITS WITH WHEEL-SHAPED CHEEKPIECES

This particular type of bit is characterised by the presence of two cheekpieces in the shape of round open-work plaques with no loops for suspension. In the centres there are round or straight spokes or larger slits in the discs. This is the oldest type attested in the Caucasus. Several bits found in Kurgan 2 at Lčašen, on Lake Sevan, date to the 15th century (Fig. 3a), while others were discovered in Artik (Fig. 3b), which is slightly later in date. Others, lacking detailed contexts of provenance, come from Gavar (formerly Nor Bajazet) and Georgia (Fig. 3c, d). Bits of the same type are also known from the Levant (Potratz 1966: 111, fig. 46).

H-SHAPED FLEXIBLE BITS

In this category the cheekpieces are joined to the mouthpiece and there is a distinctive H-shaped form. Bar cheekpieces may be straight or slightly outwardly curved. Cheekstraps might have passed through loops or holes at each end. Cheekpieces are also pierced in the centre for attachment of the mouthpiece. This category is wide-spread throughout Western Asia. Some exemplars, in both bronze and iron, are also reported from Luristan, where they might have the figure of a clasped hand cast onto the end of each rod to take the rein-rings (Moorey 1971: 126-127).

The earliest bits of this type are reported from various sites in western Azerbaijan and Eastern Armenia, all dated to about the 13th-11th century B.C. They have straight bar cheekpieces with pierced holes for passing the cheekstraps, some also with circular-shaped ends (Fig. 4a-e). Only the bits found in a grave in Vanadzor (formerly Kirovakan) are later, of 8th-7th century B.C. date (Fig. 4f).

Other bits of this type are equipped with loops, and the sidebars are bent out or curve backwards (Fig 4h-l); these are later in date, around the 9th -8th century B.C.

Of particular importance are several bits found in Mingecaur (Fig. 4g), which have a grooved decoration at the ends, of which the tops are marked by a cylindrically shaped protuberance. This type has also been found in the Uartian grave of Nor-Areš (Barnet 1963: 196, fig 45), thus probably dating this type of bit to the 8th century B.C., and also in Cinckaro, in central Georgia (Kuftin 1941: 58, fig. 56).

The bits found in Berikldeebi, in Shida Kartli province of Georgia, have a particular shape: the sidebars are triangular and curved backwards, with triangular-shaped openings for cheekstraps (Fig. 4n). They are dated to the 14th-13th century B.C. (Picchelaury 1997: pl. 91; Miron/Orthmann 1995: 257, n. 150).

Another very unusual form can be observed in two bits found in Tombs 2 and 4 of the Lori burial-ground in northern Armenia. They are made of iron and have distinctive curved sidebars (Fig. 4o) and date to the 9th-8th century B.C. (Devedžyan 1981: 58-60).

H-SHAPED BITS WITH RINGED MOUTHPIECES

The bits in this category possess distinctive features and do not closely resemble other items from neighbouring regions. The sidebars are straight with two suspension loops facing inwards and a larger ring for connection to the mouthpiece in the middle of the bar (Fig. 5). The mouthpieces are characterised by the presence of a series of additional rings. A similar item has also been found in Persepolis (Schmidt 1957: pl. 79.9). The bits from Agarak have unusual saw-tooth-edged attachments (Fig. 5b, c). One might doubt whether they were really used, since they would have caused pain to the horses. Other bits of this type have been found in Vani, Sairkhe and Qanchaeti (Lordkipanidze 203: pls. 18, 20, 22). The discovery contexts of these few items all date to the 6th-5th century B.C.; the type is thus one of few in use during the Achaemenid times.

H-SHAPED BITS WITH SPIKED MOUTHPIECES

This type of bit may also be considered typical of the Achaemenid period; several have been found in Persepolis (Schmidt 1957: 100, pls. 78.2, 4; 79.7). Other such bits have also been found in various sites throughout Western Asia and Greece (Muscarella 1988: 213). Each mouthpiece and loop is cast together with the cheekpiece, rather than made separately, and the

mouthpieces bear spikes. It is questionable whether this bit was actually used, for it would have caused pain to the horse. The cheekpieces feature the typical holes for attachment of the reins and cylindrical protuberances at the ends (Fig. 6). Caucasian finds are few and poorly documented. All examples date, however, to the 6th-5th century B.C.

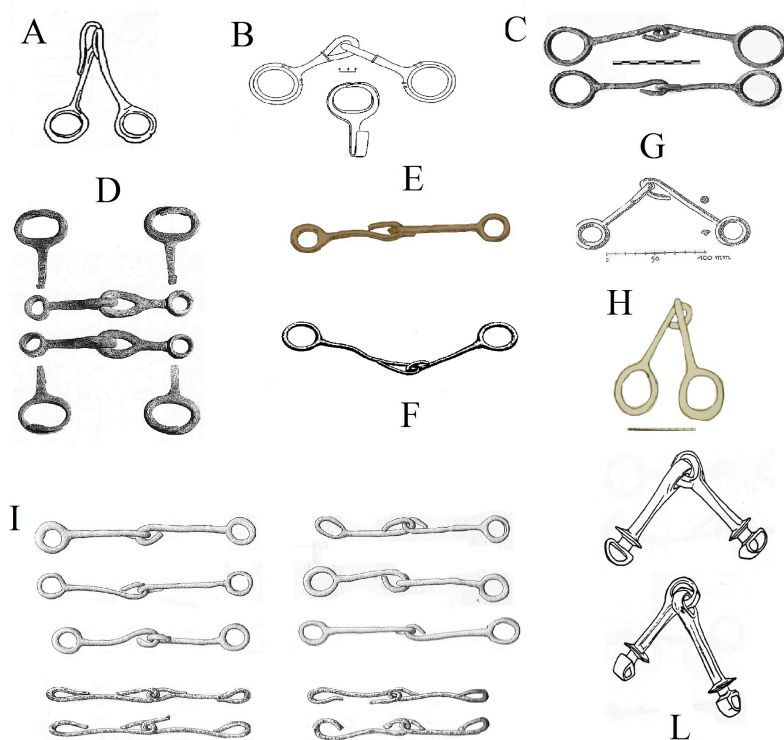


Fig. 1

- a: Artik, Armenia (Xaçatryan 1979: 142)
- b: Beštašeni, Georgia (Akhvlediani 2001: 274, fig. 1)
- c: Kalakent Paradiesfestung, Azerbaijan (Nagel/Strommenger 1985: pl. 46)
- d: Treli, Georgia (Miron/Orthmann 1995: 192, fig. 199)
- e: Narekvavi, Georgia (Apakidze 1998: 19)
- f: Sadachlo, Armenia (De Morgan 1889: 140, fig. 144)
- g: Narekvavi, Georgia (Apakidze 1999: pl. 14)
- h: Gyumri, Armenia (Martirosyan 1952: fig. 1)
- i: Melaani, Georgia (Pizchelauri 1984: pls. 53-54)
- l: Artik, Armenia (Xaçatryan 1979: 302)

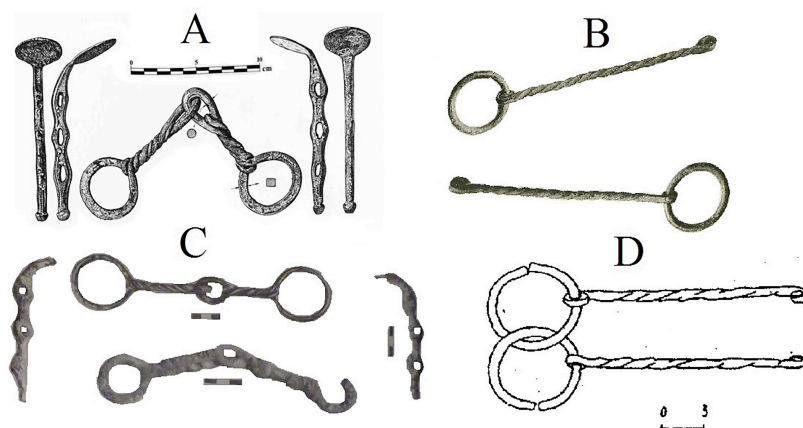


Fig. 2

a: Kalakent Paradiesfestung, Azerbaijan (Nagel/Strommenger 1985: pl. 19)

b: Kalakent, Azerbaijan (Ivanovskij 1911: pl. 7.3)

c: Mingecha, Azerbaijan (Aslanov/Vaidov/Ione 1959: pl. 34)

d: Spandarjan, Armenia (Piliposyan 1999: pl. 57)

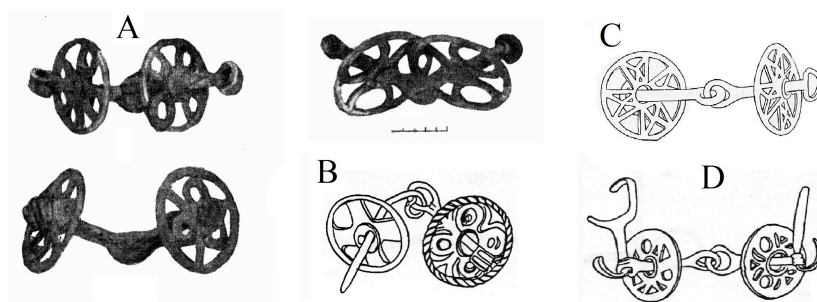


Fig. 3

a: Lčašen, Armenia (Mnacakanyan 1961: 71, fig. 25.4-6)

b: Artik, Armenia (Xačatryan 1979: 142)

c: Gavar, Armenia (Martirosyan 1969: pl. 9.5)

d: Kvemo-Sasireti, Georgia (Pizchelauri 1997: pl. 91.1725)

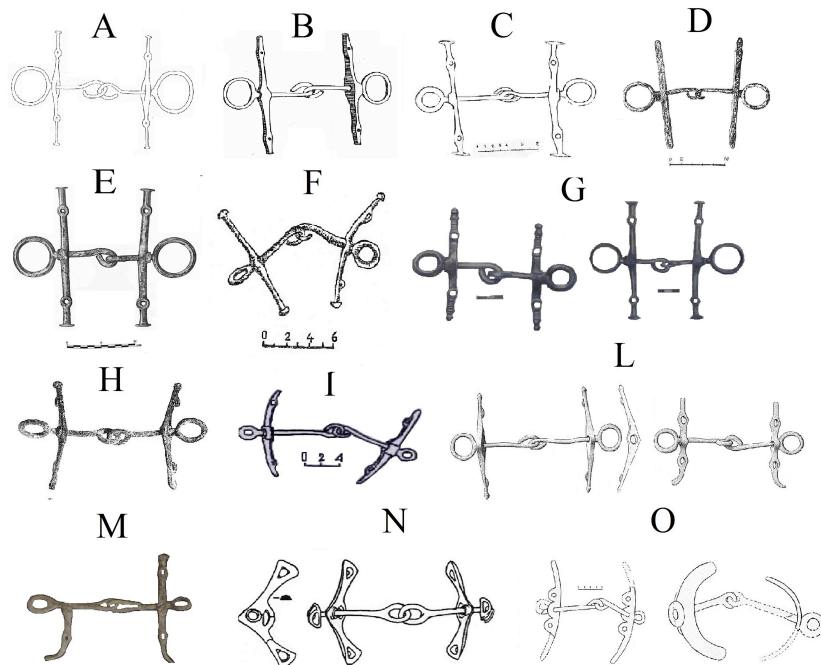


Fig. 4

- a: Artschadsor, Armenia (Rösler 1894: fig. 21)
- b: Dawschanli-Artschadsor, Armenia (Rösler 1896: 94)
- c: Vanadzor, Armenia (Martirosyan 1964: pl. 13)
- d: Redkin Lager, Armenia (Esayan 1976: 134, pl. 104)
- e: Kalakent Paradiesfestung, Azerbaijan (Nagel/Strommenger 1985: pls. 13, 23)
- f: Vanadzor, Armenia (Martirosyan 1964: pl. 21)
- g: Mingecaur, Azerbaijan (Aslanov/Vaidov/Ione 1959: pl. 34)
- h: Treli, Georgia (Miron/Orthmann 1995: 329)
- i: Širakavan, Armenia (Torosyan/Xnkinyan/Petrosyan 2002: pl. 80)
- l: Melaani, Georgia (Pizchelaui 1984: pls. 53-54)
- m: Narekvavi, Georgia (Apakidze 1998: 13)
- n: Berikldeebi, Georgia (Picchelaui 1997: pl. 91.1723)
- o: Lori-Berd (Devedžyan 1981: pl. 23.1-3)

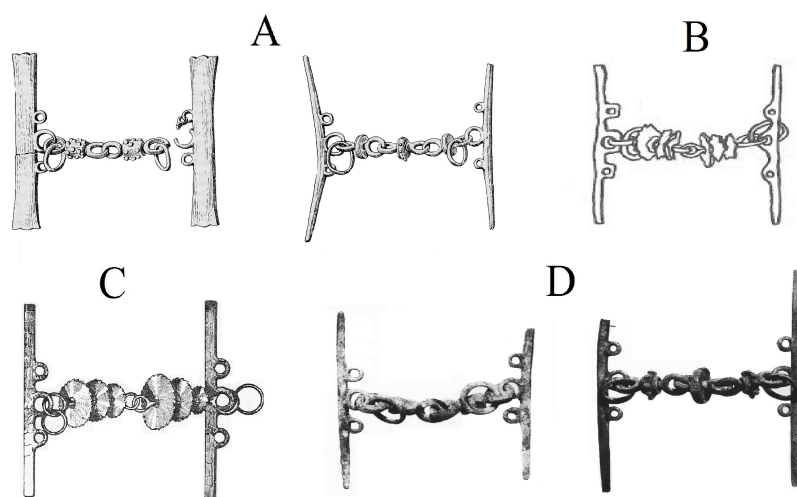


Fig. 5

- a: Akhlagori, Georgia (Lordkipanidze 2003)
 b: Agarak, Armenia (Karapetyan 2003: pl. 45.5)
 c: Agarak, Armenia (Devedžyan 1981: pl. 23. 6)
 d: Algeti, Georgia (Kuftin 1941: pls. 12-13)

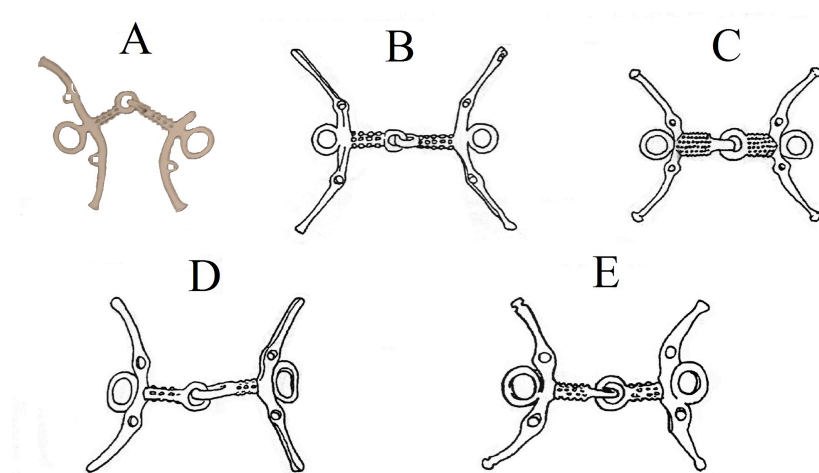


Fig. 6

- a: Krasnyj Mayak, Abkhazia (Trapš 1969: pl. 22)
 b: Dalanlar, Azerbaijan (Kuftin 1941: fig. 58a, n. 2)
 c: Itchvisi, Georgia (Gagošije 1968: pl. 2)
 d: Unspecified place from Georgia (Kuftin 1941: fig. 58a, n. 7)
 e: Šida Kartli, Georgia (Kuftin 1941: fig. 58a, n. 4)

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