

The Function of a Chlorite Hand-Bag of the Halil Rud Civilization as Inferred from its Wear Traces

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A chlorite “hand-bag” belonging to the once-called “intercultural style” production, currently on exhibit in the National Archaeological Museum, Tehran, is described focusing attention, for the first time, to the peculiar wear traces clearly visible on the handle and along its contour. The strong wear suggests that the hand-bag was suspended for a long time on a cord; and that in this setting it was gradually polished while rubbing against a soft surface, most probably a vertical one, covered with cloth. While this inference is based on a single object, and therefore is far from being granted, we propose that wear traces can provide a useful key for understanding the function of these peculiar objects. At a later stage of its life-cycle, the hand-bag was broken and restored with iron fittings and nails. As the edges of the great Iranian deserts are a favorable location for the recovery of iron-rich meteorites, we propose that the iron parts of the Tehran hand-bag should be analyzed to test the possible presence of rare metals like nickel, niobium and others, more abundant in meteorites than in terrestrial iron.

Keywords: Halil Rud Civilization; Intercultural Style; Chlorite Hand-bag; Meteoritic Iron.

Introduction

A close range observation of a well known chlorite “hand-bag” presently on exhibit in the National Museum, Tehran suggests that the importance of this well known but peculiar artefact, so far, has been underestimated¹. In first place, the broken handle and the two faces of the hand-bag bear distinctive wear patterns, suggesting that the object was hanged for a long time by the means of cloth ties or cords, probably in the fashion of a flat weight. While hanging, the surfaces of the bag must have rubbed for a long time against soft surfaces (possibly vertical walls covered by cloth). Although it is impossible to ascertain if this was its primary function, and we cannot exclude a process of re-use with a different function, we hypothesize that both wear traces – on the handle and on the main faces – are consistent with a funerary and/or possibly cultic function. Moreover the handle, damaged by an unusually intensive consumption, was restored with four metal strips, almost certainly made of iron. As

the greatest part of the artefacts previously ascribed to the “intercultural” style is datable beyond doubt to the second half of the 3rd millennium BC, we also wonder if we might be dealing with an early use of this metal. It would be important to test analytically these metal strips, searching for possible evidence of a meteoritic origin.

Chlorite Hand-bags: What Was Their Function?

The issue of *Vogue*, February 2009, presented, at pages 188-193, an article by H. Bowles praising the elegant flat of a couple of interior designers. Scattered on wardrobes and shelves one sees a collection of “Bactrian alabaster idols” of the 3rd millennium BC (as they are defined in a caption of p. 191) doubtless coming from the ruinous and illegal plundering of countless ancient cemeteries of northern Afghanistan or another nearby region. The collection includes conical, globular and cylindrical bowls in banded travertine, pedestalled cups, grooved miniature columns and at least a hand-bag weight (hereafter we will use this word) in the same light-coloured stone (hand-bags were more commonly made with darker chlorites). It is because of the explosion

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1. A preliminary version of this paper was presented by MV at the archaeological conference organized by ICHTO at Ramsar (Iran) in May 2008.



of the market of these funerary objects that their original contexts will remain unknown forever; we all know that the damage done to the heritage of Afghanistan and Pakistan (and to our historical interests) is beyond description or comment. So far, finished or unfinished chlorite hand-bags have also been found in regular excavations of settlements in south-eastern Iran, in Iraq and in Uzbekistan (Lamberg-Karlovsky 1988; Pittman 1990; Pottier 1984; the most complete review of these appeared in Muscarella 1993), but, as far as we know, they were never reported after the scientific excavation of a protohistoric grave.

Recently, a large number of these beautiful and complex artefacts have been illegally excavated in the plundered graveyards of the Halil Rud. Only few specimens, unfortunately without context, were later recovered by the Iranian authorities (Madjidzadeh 2003a: 123-129; 2003b; 2003c; 2009; see also Amiet 2002 and questionable remarks by Muscarella 2005; Piran 2013). What was their symbolic meaning and their actual function in the funerary rituals? Together with chloritochist staffs and miniature columns, “weights” of variable forms, including finely figurative stone hand-bags, had probably a very specific function in the funerals of the elites that, in the late 3rd millennium BC, across Eastern Iran, Bactria, Central Asia and northern Baluchistan. They played an unknown but evidently pervasive ideological function.

Morphological Evolution and Chronological Problems

In the protohistory of Middle Asia, the morphological evolution of stone handled weights has never been studied in the due detail. Their formal evolution in the sequence of Tepe Hissar may provide a first hint. Few rough hand-bags, distinguished by a solid, thick body and unpolished surfaces, were found by E. Schmidt (1937: Pl. XVIII, H 2095) in a Period IIB context, datable to 3300-3000 BCE. Two identical rough handled weights were recently recovered on the surface of a minor settlement in Sistan, together with pottery of the early 3rd millennium BCE (Reza Mehrafarin,

personal communication)¹. Going back to Hissar, a smooth, elongated type (H. 2772), with a well shaped handle, was found in the Burned Building, dated to Period IIIB (about 2400-2200 BCE). Finally, there are the flat, disk-shaped specimens of Period IIIC (about 2200-1900 BCE), comparable to the disk found in the late Namazga V hoard at Altyn Depe (Masson 1988; absolute dates after Dyson 2009).

The fine hand-bags carved in the Halil Rud style are not represented in the Hissar collections, but were certainly manufactured in specialized manufacturing areas in south-eastern Iranian settlements like that excavated at Tepe Yahya, Period IVB (Lamberg-Karlovsky 1970; 1988). The precise dating of the IVB settlement at Tepe Yahya is a well know matter of dispute (see, among many others, Ascalone 2006: 47-53; De Miroschedji 1973; Kohl 1971; 1975; 1978; Lamberg-Karlovsky 1970; 1971; 1972; 1976a; 1976b; 1988; Beale 1973; 1986; Amiet 1986; the debate continuing in Lamberg-Karlovsky and Potts 2001; See also Potts D. T. 1993). P. Amiet, after the evidence of the seals, had dated Yahya IVB to 2500-2200 BCE (see also De Miroschedji's 1973 date of 2600-2300 BCE). Most of the other authors initially disagreed, ascribing the same occupation levels and the production of the *série ancienne* chlorite artefacts to the first half of the 3rd millennium BCE. Beale 1986, in contrast, proposed the wide-ranging and later interval 2400-1800 BCE; later, T. F. Potts (1994) extended the chronology of the carved artefacts to the times of the Ur III dynasty.

In the two last decades, the production of the same objects was rather restricted to the second half of the 3rd millennium BCE, accepting the substance of Amiet's and De Miroschedji's original views (see for example Quenet 2008, who places the production between ED III and the early Akkadian Period; and Ascalone 2006). Finally, also the excavator of the Tepe Yahya workshop area placed its occupation

1. Two important articles by Reza Mehrafarin, respectively describing the results of a surface survey of the Kuh-i Khwajia sites and two early stone bag-like weights found in another surface survey in Sistan, had been edited by me and Beniamino Melasecchi for their publication in East and West. Unfortunately, the publication of our journal was suspended when in 2010 the Italian government, with an illogical and ruinous move, decided to shut down ISIAO. I take the chance of apologizing with our Iranian colleague for these unfortunate events (MV).



from 2400 to 2100 BCE, (Lamberg-Karlovsky and Potts 2001: 275, while D. T. Potts, in the same report, still seems to favour a later date). The carved chlorite fragments and ceramics recently gathered in the site of the plundered graveyard of Mahtoutabad (near Konar Sandal, Jiroft) preliminary confirms Lamberg-Karlovsky's recent views, placing the circulation of the carved chlorite artefacts in the Halil Rud valley around the 24th-23rd centuries BCE (Vidale and Desset, ongoing research).

However, only few authors continue to propose earlier periods, or suggest that the *série ancienne* has a long stylistic evolution deeply rooted in the early 3rd millennium BCE (for example Perrot and Madjidzadeh 2005; 2006). Although artefacts of the same class in Mesopotamia could go back to the second quarter of the 3rd millennium BCE (Moorey 1994: 47-48), so far the stylistic evolution of this production across the 3rd millennium BCE has not been described and elucidated, and for the moment it remains a promising hypothesis of work.

Tepe Yahya must have been only one of a large constellation of manufacturing sites that in the second half of the 3rd millennium BCE provided the main urban centres of the Halil Rud civilization (perhaps the powerful polity of Marhashi, following Steinkeller 1982; 2006; 2008) with these famous objects. In the same site, a possible unfinished specimen was found in context A.75.9.8 (Lamberg-Karlovsky and Potts 2001: Fig. 4.40, see also 141-143). The looting of many of these objects in the Halil Rud graveyards strongly suggests that these objects circulated in the local early urban settlements to be finally displayed and used in important elite funerals, and were not mainly produced for external trade to the west (as originally proposed in Kohl 1971; 1975; 1978 and widely reported in the following years by many authors). Although chlorite manufacturing workshop areas have been not yet identified at Konar Sandal South and in the surrounding sites, important outcrops of chlorite are known at the edge of the Halil Rud valley, and it is expected that future surveys will reveal the evidence of a substantial local production (Y. Madjidzadeh, personal communication).

The hand-bags so far published seem to share many symbols and iconographic themes with

the figuration of part of the chlorite vessels in Madjidzadeh 2003a. Their final deposition in the graves might have little to do with their actual use during the funerals and/or the funerary feasts. We imagine that even the eventual discovery of some stone hand-bags in their primary context of deposition, besides the buried human remains in their graves, could not provide a decisive solution to the question of their function, both in material and symbolic terms. For such reasons, it may be of some interest to observe how the chlorite hand-bag presently on exhibit in the Tehran Museum retains strong and evident wear patterns. This evidence might help us to hypothesize how at least one of these objects was used and modified before its presumed burial or loss.

Description of Hand-bag Tehran 675

The hand-bag we re-discuss is kept in a showcase of the Tehran Museum with the inventory number 675. It was and it is still presented together with artefacts dated to the 1st millennium BC, because of the iron fittings visible on the broken handle. Nonetheless, its belonging to the productions and style of the Halil Rud civilization is beyond doubt. The Museum label also states that the "stone plaque" comes from Azerbaijan. But the piece, as was already noted, was bought on the antiquarian market, its real provenience is unknown and according to O. W. Muscarella (2005: 144) such spatial information, if taken literally, might distort the overall distributional pattern of the Halil Rud style.

It was previously published by Y. Godard (1938) and later commented by various authors, among which F. A. Durrani (1964); P. Kohl (1975); C. C. Lamberg-Karlovsky (1988) and again in 2005, in the above quoted paper, by O. W. Muscarella. One of the authors (MV) could observe at length from a close distance and from both sides the "Azerbaijan" hand-bag in 2006-2007, before the Museum's display cases were substituted and the piece shifted to a less accessible setting. In the old case, each side of the object could be easily scrutinized. With the help of the published pictures, and taking more pictures the authors obtained a detailed drawing of the artefact from three sides (fig. 1). The new drawing, besides



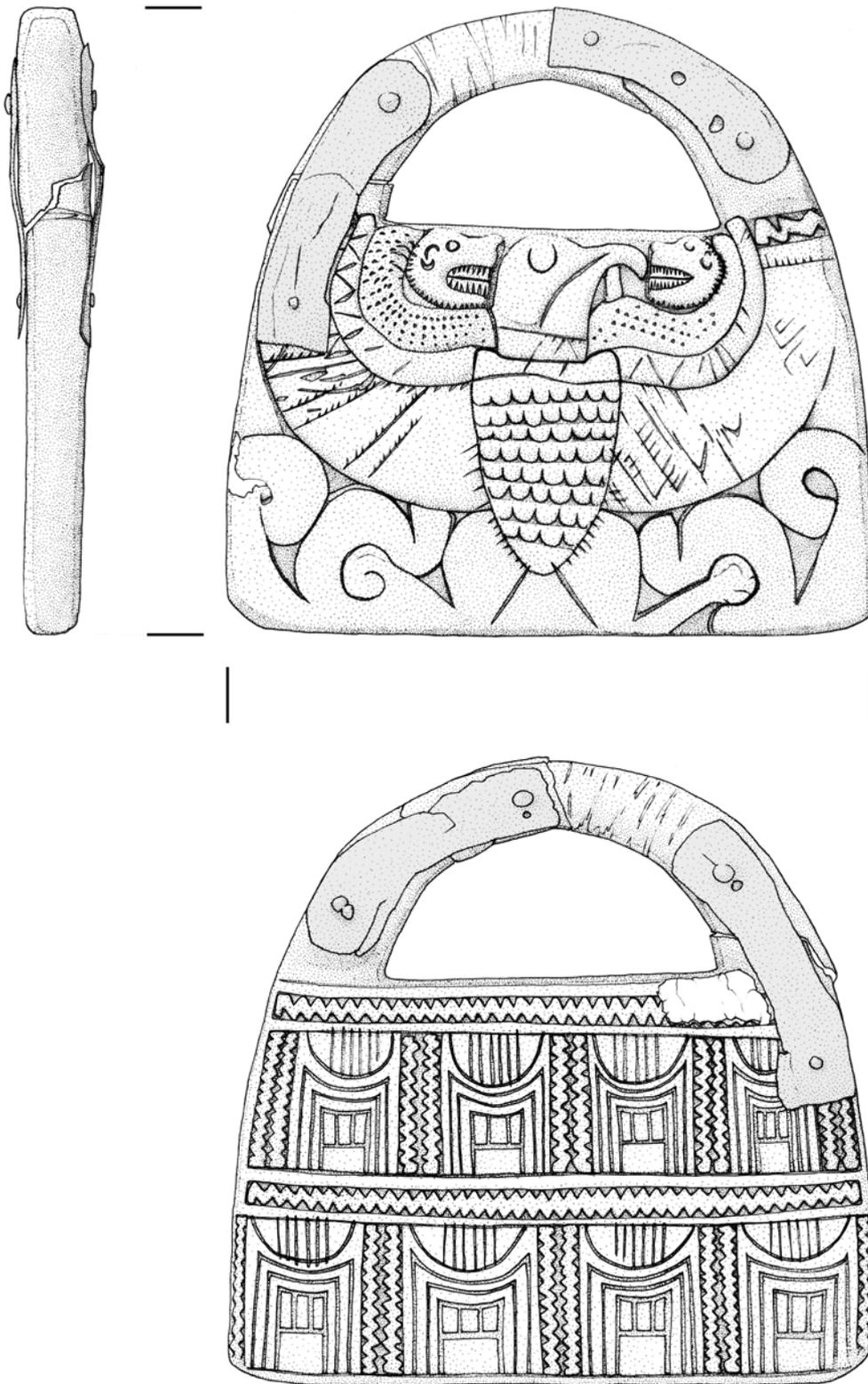


Fig. 1: The new drawing of Tehran 675 made by the authors, emphasizing the wear features and the metal strips applied for restoring the handle. The hand-bag measures 27 x 26 x 2.3 cm.



the figuration, emphasizes the wear traces and the other types of damage underwent by the artefact.

The original pencil drawing was later completed and inked carrying out a careful check of the drawing matching it with various close-up pictures and helped its interpretation. In particular, the lateral view provided for the first time details on the breakage features of the handle and its ancient restoration with the iron (?) fittings.

The Tehran Museum hand-bag (27 cm wide, 26 cm high, 2.3 cm thick, measures after Muscarella 2005) shows on the main side is a frontal vulture with wide outspread wings. The head in profile looks leftwards, animated by a large round eye, near the top of the head. A sloping curve line reaches the neck, suggesting a powerful beak. From this latter, slightly inflected downwards, hangs a short vertical beard that identify without ambiguity the bird – like many other vulture images in the Marhashi or Halil Rud vessels - as a bearded vulture (*Gypaetus barbatus*).

On the upper edge of the wings run an irregular zig-zag pattern. The treatment of the feathers outstretched on the wings is, to a great extent, effaced by a strong, extensive planar wear, but the oblique feathers seem to have followed a symmetrical radiating pattern and were probably filled with dense, thin oblique lines. The wings, ideally rising into the wide arc of the handle, were interrupted at the base of the handle by horizontal zig-zag segments in low relief. The compact breast is conventionally rendered as a shield-like element and decorated with a poorly preserved scale-design in eight superimposed bands, converging to the right and suggesting a thick plumage.

With outstretched hind legs and round talons, the vulture grasps the bodies of two powerful snakes. In the stylistic convention of the Halil Rud, the tight claw was represented as a circle, probably superimposed to the snake's body, but the details of the individual claws are effaced by wear and not preserved. The snakes' bodies, originally filled with rows of dots, were imagined as coiling twice at the corners of the object, before converging behind the rear attachment of the wings.

From here, the coils follow the edge of the wings to end in two reptilian heads facing heraldically the head of the vulture. The join between the body and the heads of the reptiles is clumsy, but it obeys to the need of filling concentrically the spaces left above the vulture. The head of the left snake is smaller, due to the encumbrance of the projecting beak and beard of the raptor. The end of the reptiline muzzle, at the nostril, is slightly raised (the rear of the head, too, is raised above the eye), and the heads' contour is marked by a continuous series of short transversal traits. The ears are suggested by two irregular semi-circular marks. The eyes are small circles, and the rendering of the teeth, in the open wide fangs, is again quite conventional.

The vulture or raptor attacking the snakes is notoriously one of the most distinctive motifs of the carved chlorite artefacts of the Halil Rud tradition. It is encountered at Tarut, Nippur (detailed references in Muscarella 2005) and in a series of pieces without context of provenience: two hand-bags published or re-published by Muscarella (2005: Fig. 7-a, b and Fig. 11-a, b) and other carved chlorite artefacts most probably coming from the Jiroft archaeological region (Madjidzadeh 2003a: pp. 92, 93, 95, 96, 97, 126).

On the opposite or rear side, one sees 8 hut- or door-frame motifs arranged in two superimposed bands. Each is rather carefully rendered with 4 concentric patterns; the “door” or innermost field furthermore contains 3 small rectangular “windows” in the upper part, while semi-circle above are filled with 6 central vertical lines (like in the cylindrical vessel in Madjidzadeh 2003a: 70, or in the broken box in Lamberg-Karlovsky and Potts 2001, Fig. 9.10) with the exception of a single hut in the upper band where such vertical lines are 5 (evidently an error). As a rule, each hut is flanked by a couple of parallel vertical zig-zag lines in low relief, but the two huts in the lower corners of the hand-bag, having /respectively at left and right) only one of such lines. The whole panel on this rear side is limited on top by a continuous horizontal line of the same fashion.



Wear Patterns

Madjidzadeh's catalogue (2003a) shows few hand-bags that may have been partially modified by intensive use and friction: see, for example, the specimens at p. 126 and p. 123. This latter, in particular, seems intensively worn in the handle, possibly suggesting that the piece was hanged by the means of a rope for a comparatively long time. Another hand-bag published in Muscarella 2005, Fig. 7a, b (from the White-Levy Collection) seems to have been intensively and rather uniformly worn. One face shows a vulture grabbing two snakes, the opposite one the profile of a long-haired man (?) with a prominent nose facing a couple of powerful mastiffs, with a scorpion, a palm and two spouted vessels. Wear is not mentioned in the accompanying text, but the figures seem quite smoothed; the tails of the snakes, in particular, raising to the base of the handle, look almost cancelled. Possibly, the wearing-off process continued even after the breakage of the corners.

Nonetheless, the heavily worn surfaces distinguish hand-bag Tehran 675 from any other similar artefact so far published or put on exhibit on a museum. The object might have been used in a very consistent way for a long time, possibly for centuries, and for this reasons the resulting consumption features may provide useful information. Wear patterns on Tehran 675 may be commented as follows.

Wear on the Handle

This latter retains on both faces a regular series of sub-vertical radiating grooves, quite visible, particularly under oblique light, in the portions of the handle not covered by the restoration metal fittings. The grooves on the two faces are off-centered. The wear was so strong that when it came into contact with an inner fault or diaclastic plane (the hand-bag had been carved out of a slab with a strongly inner layered structure) the handle of the object broke off in a stepped fashion. The feature of this breakage are clearly visible in the side view of our drawing (fig. 1).

Wear on the Main Face (the Vulture Grabbing the Snakes)

In this face (intuitively, the most important) the wear has been uniform and very strong, and particularly towards the bottom. Here it cancelled to a great extent the carvings of the talons, claws and tail of the vulture, as well as the dotted surface of the snakes' bodies. Such strong wear suggests that the hand-bag, while being suspended to a rope, rubbed continuously onto a (soft?) surface.

Slight wear on the Opposite Face ("Huts" or Doors Pattern)

In this face was active the same type of friction. Planar abrasion was uniform but much more limited; the original carvings, in fact, are fully readable.

Other Wear Features

In general, one observes that the whole surface of the object underwent a general, prolonged friction against softer surfaces or bodies. Such wear also affected the upper surface of the bag, below the handle, and the lower corners, that appear uniformly smoothed off. The absence of later flaking scars furthermore indicates that this hand-bag was not suspended in a row of similar contiguous "weights". In fact, if we can use as a model prehistoric loom weights, as a rule suspended in continuous rows at the base of the looms, are generally marked by intensive flaking at the basal region of maximum expansion, where they frequently clashed one against the others, being chipped at the edges. Wear evidence, in other words, shows that hand-bag Tehran 675 was hung as an isolated piece and not in a row of similar objects.

Metal Fittings

The prestige and/or highly symbolical value of this piece is also probably stressed by the choice of restoring the broken handle by re-composing and fixing it with four "iron" strips or sheets. The identification of iron is hypothetical, given the absence of any analysis. However, the four flat



pieces or fittings actually look reddish brown, and iron at present is the less demanding explanation. The metal strips appear to have been cut with the same form – elongated rectangles, with one end rounded, slightly expanded and the opposite one straight, somehow reminding of the conventional form of a phalanx, if not of the form with which the claws of these vultures are usually rendered in the Mahrashi iconography. The reasons for the selection of such a peculiar form for the restoration, on the other hand, are not easily explained, as simple rectangular strips would have played exactly the same function. The flat strips were symmetrically placed on the opposite faces of the handle, above the two fractures, their extremities being perforated; then a tiny hole was drilled on both fractures of the chlorite handle, and a thin “iron” rivet with a round (?) section was finally inserted from strip to strip, across the stone, thus making again the piece partially functional. The strips strictly follow the frontal flat surfaces of the handle and do not extend to follow its rounded edges.

Discussion

The wear features we have described may provide further hints on the way the object had been actually used. In first place, the radiating worn grooves recorded along the visible portions of the restored handle were left by a rope or string loosely coiled onto an hanging hand-bag, as reconstructed in fig. 2; only a continuous friction with a cord might have modified the handle in such a fashion (up to the point of eventually causing its breakage). In particular, the radial wear lines might be well explained if, while hung, the hand-bag could partially oscillate, allowing the coiled cord a partial movement against the handle.

Moreover, the hand-bag was hung for a long time rubbing with its main faces against soft surfaces. Another positive deduction is that, while thus hanging, the object was polished much more intensively on the side with the scene of the bearded vulture fighting with the snakes than on the opposite surface.

The simplest and most likely possibility is friction against a continuous hard plane covered

with a cloth. How could we account for this peculiar evidence? In some (comparatively recent) religious traditions of Iran and Pakistan, the graves of saints and pious personages are often venerated as seats of pilgrimage and prayer. Their graves are surrounded by flags and festoons and regularly dressed with fine cloth, often fixed with weights that protect the top and the sides of the dressed construction from wind. If the protohistoric hand-bag we have discussed was used in a similar fashion, as suggested by the reconstruction of fig. 3, this function might be consistent with the strong wear on the handle and the minor wear on the large sides; as stated above, what we empirically perceive as the most important figuration (vulture-and-snakes) is more intensively worn than the opposite side with the doors façade. Perhaps – admitting the grave hypothesis – the main image was purposefully put to face the burial, while the secondary side was visible from the exterior, as it does from the long side of the construction imagined in fig. 3.

A first problem is that if we admit that the use of the hand-bags was funerary, the objects must have been used and exhibited in short events, that cannot explain the strong wear we described (unless they had been used in several funerals for centuries). Another serious limit of this idea is that, although the reconstruction we propose is grounded on material evidence, we cannot be positively attribute the wear process to the original function and context of use of this bronze age artefact. There is no way of ruling out a later re-use, and this possibility is stressed by the evidence of the use of iron as the medium of restoration of the handle.

In Middle and South Asia, people frequently gathers ancient stone artefacts or fossils and dedicate them to the graves of holy personages (see

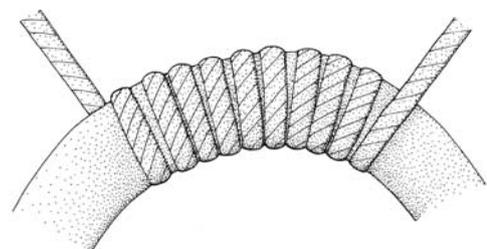


Fig.2: Hypothetical reconstruction of the setting of the coiled cord on the handle. The radiating wear pattern is explained by the partial run of the cord around this part of the artefact (Drawing by the authors).



for an example Lamberg-Karlovsky and Potts 2001: in Fig. 4.41, 142, the tomb of a saint at the village of Ashin). In Sindi Kohistan, Vidale saw many years ago one of this graves covered with ammonites and prehistoric stone tools intensively worn by the hands and body parts of pilgrims who used to strongly rub the stones against their body, while asking for recovery from skin diseases. Nonetheless, similar practices would not easily explain the cord marks on the handle, nor the wear on other published hand-bags we mentioned above.

Even the idea that this ancient artefact was manufactured the late 3rd millennium BCE, properly used with its intended ritual functions, then lost or de-functionalized and recovered after centuries, again re-used for a long time in a different context, to be finally restored with great care has its drawbacks. First of all, this theory would imply that the hand-bag remained in use for a millennium or more. If, on the contrary, the breakage and the

ensuing restoration with iron fittings happened after a relatively shorter and continuous period of use, let us imagine few centuries, the restoration might have taken place from the late 3rd to the first half of the 2nd millennium BCE.

In the middle or middle/late Bronze age (ca. 2500-1500 BC) iron was obtained, perhaps rarely but with noticeable competence, from meteorites; and it is well known that the word for meteoritic iron is also inventoried in Akkadian and Sumerian lexical lists (Postgate 1997). As iron-rich meteorites would have been rather easily collected in the open stretches of deserted surfaces so abundant in the main depressions of central and south-eastern Iran, this region of South Asia might well have been the theatre of early iron working experiments. For example, the scarred-face god of the Louvre, considered an example of the “intercultural style” (Benoit 2003; Parrot 1962: 93-94; Musée du Louvre 1963: 231-236) bore around the head an

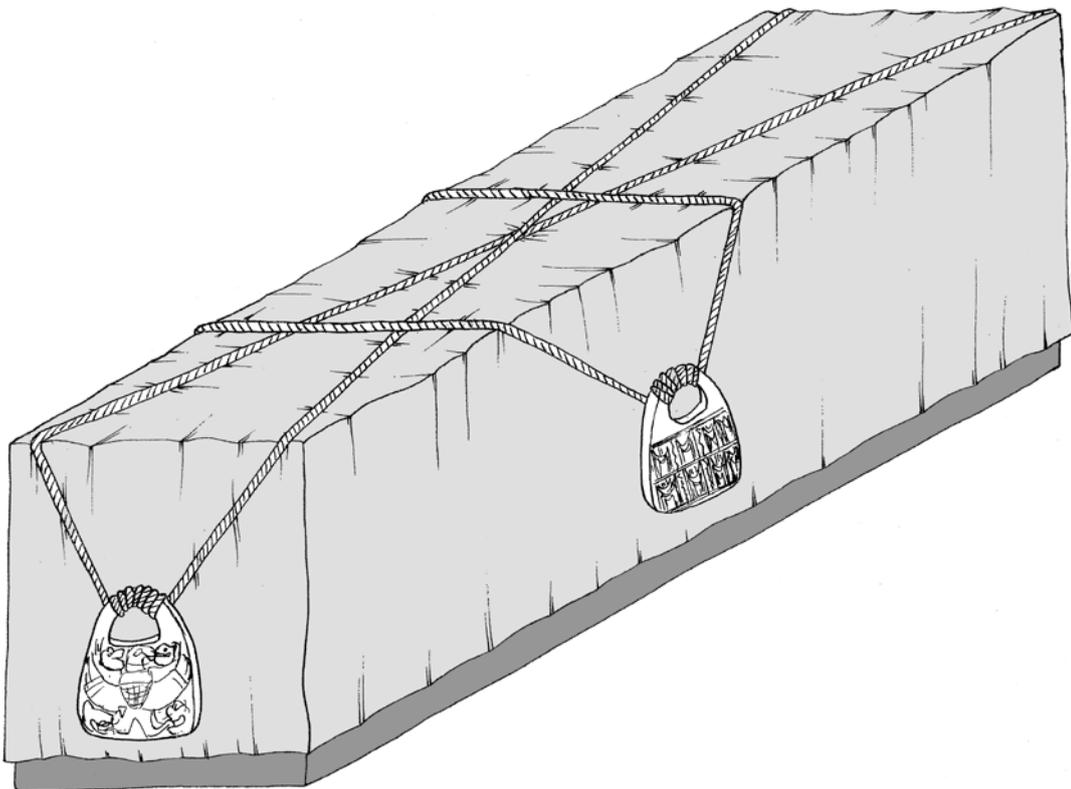


Fig. 3: Conjectural reconstruction: using the hand-bag onto a grave (or another construction) covered by cloth, as discussed in the text (Drawing by the authors).



iron fillet, thus providing a second example of a chlorite/steatite finely carved artefact of the late 3rd millennium BCE modified with applied iron fittings. If future chemical tests of the Tehran handbag will show the presence in the iron pieces of elements commonly encountered in meteorites (in first place high peaks of nickel) the hypothesis that the restoration took place in an early period would gain substantial ground. The use of meteoric iron might also be explained by a magic or religious concern for this distinctive artefact.

Conclusion

On the whole, the observations and provocative hypothesis we present are far from providing a conclusive interpretation. We are aware, obviously enough, that we described a single object, and that generalizing on this limited ground would be quite hazardous. On the other hand, so far, wear traces have never been considered as a key for understanding the Marhashi ritual chlorite goods. The case we present suggests that these objects should be usefully considered also from this new and less conventional viewpoint.

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