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EDOARDO SCARPANTI



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Archaeological evidence for tattooing from the Eurasian steppes in the Iron Age: Some remarks

GIULIO MARESCA

“L’Orientale” University of Naples

“Sapienza” University of Rome

Abstract

Several Iron Age funerary *tumuli* (“kurgans”) from the Eurasian steppes have revealed archaeological evidence for ancient tattooing practices in that part of the world. This paper reviews the tattoos on human bodies found buried within the so-called “frozen kurgans” in the area of the Altai Mountains and discusses the evidence represented by artefacts discovered in kurgans located in the Southern Urals area and possibly interpreted as tattooing implements.

Keywords: Ancient tattooing, Eurasian steppes, Iron Age, frozen kurgans, Pazyryk archaeological horizon, tattooed mummies, tattooing implements.

Excavations of eight kurgans at the site of Pazyryk (fig. 1), in the Ust-Ulagan Valley,¹ on the Altai Mountains, Russian Federation, were carried out by M.P. Gryaznov in 1929 and by S.I. Rudenko in 1947-1949, both from the State Hermitage Museum in St. Petersburg (Gryaznov 1969; Rudenko 1970). Their activities provided extensive archaeological information concerning a wealthy community of Iron Age mobile pastoralists who used to bury their dead together with horses. Especially, excavations yielded exceptional evidence for intentionally mummified human bodies and frozen horse

1. Toponyms, hydronyms and oronyms are reported according to the variants more commonly used in the international scientific jargon.

remains, because these had been preserved by the permafrost-affected soil of the area, particularly where looting pits had allowed water to flow into the burial chambers, which then froze and remained frozen. Thanks to these conditions, several organic materials were excellently preserved, such as fabric, leather, fur, felt, wood, horn, hair and, in particular, tattooed human skin.²

Tattoos from burials of the Pazyryk culture have been extensively described and discussed by several scholars in the last decades – even very recently (Rudenko 1970: 109-114, 260-266; Brilot 2000; Polosmak 2000; Barkova and Pankova 2005; Argent 2013; Iwe 2013; Yatsenko 2013; Pankova 2017; Bonora 2018), and are considered as some of the oldest pictorial tattoos known to humankind.³

As stressed by Iwe (2013: 89), in the non-literate society of the Iron Age Eurasian steppes, those tattoos:

[...] are part of the Scytho-Siberian Animal Style, which is mainly based on zoomorphic signs. They record fleeting moments in nature by turning the observed event(s) into permanent manifestations on objects and surfaces. The basis for these signs was a precise obser-

2. The artefacts recovered from the Pazyryk burials, many of which served as ornaments for the horses buried in the kurgans, exemplify an eastern subgroup of the so-called Scytho-Siberian “animal style” that was distributed across the Eurasian steppes during the Iron Age (Bokovenko 1995). By virtue of the early excavations of the 1920s and 1940s, Pazyryk gave its name to an archaeological culture which became apparent upon subsequent investigation of hundreds of coeval Iron Age “frozen” kurgans with a similar structure and yielding analogous grave goods within the Altai Mountains region.

3. For this reason they are quite renowned among contemporary tattoo artists, at a point that they are often reproduced, even nowadays (Dale and Krutak 2017).

vation of natural events (e.g. the behavior of a given animal species) by the people. The repetition of these signs over several centuries emphasize the fact that these motifs were retained over many generations and were based on a standardized repertoire which we can identify, first as a figurative language with its 'grammar', and secondly as a communication platform for a given area.⁴

As far as chronology is concerned, dendrological and ¹⁴C analyses on the wooden logs of the funerary chambers of the five largest kurgans (nos. 1-5) demonstrated that the burials covered only a 48-year period, with kurgans nos. 1 and 2 at the beginning, *i.e.* at the very end of the 4th century BCE, kurgan no. 4 in year 7, kurgan no. 3 in year 37 and kurgan no. 5 in year 48, *i.e.* around the mid-3rd century BCE (Malloy *et al.* 2002).

Previous to 2004, tattoos had been documented only on the mummified body of the man (aged between fifty and sixty years at the moment of his death) from kurgan no. 2 (Rudenko 1970: figs. 51-54, 121, 123, 124, 126-134). These very famous tattoos (figs. 2a,b) covered his shoulders, arms, breast and back, as well as the lower part of his right leg. Their iconographic *repertoire* mostly included fantasy creatures (especially the so-called "hoofed griffins") and ungulates (several rams and an onager). The peculiar dotted pattern visible on his vertebral column and attested also around his ankle, instead, seems to be interpretable as a possible form of ther-

4. Pankova (2017: 89) shared the same opinion, stating that Pazyryk tattoos represent: "a kind of visual language [...], because they seemingly communicated crucial information to members of local society while also permanently marking the populace's affiliation to it [...] in line with the visible character of the culture, in that they are highly decorative and full of animals and other important imagery".

apeutic tattooing with beneficial effects similar to acupuncture (Rudenko 1970: 112; Krutak 2013, and *in press*).

In October 2004, three mummies from kurgans nos. 2 and 5 at Pazyryk were photographed in reflected infrared light at the laboratories of the State Hermitage Museum in St. Petersburg, and unexpectedly turned out to be tattooed (Barkova and Pankova 2005).

The first one was the woman (about forty years old at the moment of her death) from kurgan no. 2 (fig. 3), who revealed a “hoofed griffin” with twisted body tattooed on her left shoulder, an ungulate (possibly an Argali sheep) with twisted body on her right biceps and realistic deer antlers on her left wrist (Barkova and Pankova 2005: 49-50, fig. 2). Also the mummified body of the man (aged about fifty-five years when he died) from kurgan no. 5 (Barkova and Pankova 2005: 50-54, figs. 4-10) revealed an impressive series of tattooed animals (a tiger, birds, Argali sheep, Kulan donkeys and other ungulates) on his left shoulder and scapula, arms, thumbs, back side, left buttock, left tibia, right ankle and left foot (fig. 4).

The tattoos discovered on the body of the woman (aged about fifty years at the moment of her death) from kurgan no. 5 (fig. 5) were instead slightly different from the ones previously reviewed, both in style and iconography (Barkova and Pankova 2005: 54-58, figs. 11-14). A bird (a sort of rooster) was tattooed on the left thumb, while her ring fingers showed a cross and some vegetal motifs. On her left forearm, a scene depicting a griffin assaulting an elk was visible. The tattoo on her right forearm, portraying two elks attacked by two tigers and a leopard, was instead considered as betraying some influences related to Chinese art (Barkova and Pankova 2005: 58).

Nowadays, however, the tattoos documented at Pazyryk 2 and Pazyryk 5 no longer represent the only specimens of Iron Age tattoos known from the Eurasian steppes. In the 1990s, further evidence for Pazyryk type tattoos was brought to light in the area of the Altai Mountains.

In 1993, N. Polosmak discovered a mummified tattooed female body (twenty-eight to thirty years old) in kurgan no. 1 of the Ak-Alakha-3 burial site (fig. 1), on the Ukok Plateau, in the Southern Altai area, Kosh-Agachsky District (Polosmak 1994; Polosmak 2017; Polos'mak 2001: 228-37; Čikiševa *et al.* 2015). The tattoos on her body (fig. 6), in a rather poor state of preservation, revealed some similarities with those of the woman at Pazyryk 2. A fantasy creature (“hoofed griffin”) was tattooed on the left shoulder; the left forearm, just beneath the elbow, showed a fighting scene between a snow leopard and a ram; another fantasy creature with twisted body was possibly portrayed below, while realistic deer antlers were tattooed on the left wrist. In addition, a very small figure of a ram with twisted body adorned her right thumb.

The burial ground of Verkh-Khaldzhin-2, instead, is located at a distance of about 3 kilometres from the Ak-Alakha-3 necropolis (fig. 1). Archaeological excavations of its five kurgans were carried out in the mid-1990s by V.I. Molodin, on behalf of the Institute of Archaeology and Ethnography of the Siberian Branch of the Russian Academy of Sciences (Molodin *et al.* 2000). Traces of tattooing were attested only on the right shoulder of a young man buried alongside a horse in kurgan no. 3, excavated in 1995. Although only partially preserved, his tattoo (fig. 7) seems to portray a “hoofed griffin” with twisted body, in the style of the other tattoos documented in the area.

Unfortunately, the rather rich evidence for tattoos from the frozen Iron Age burials of the Pazyryk culture in the Altai Mountains is not counterparted by similarly abundant information about the way those tattoos were etched on human skin. This is probably due to the fact that archaeological evidence for tattooing tools is mostly elusive, because of its rather ephemeral nature and also because of possible research biases. As brilliantly summarised by Deter-Wolf (2013: 15) in a paper about the possibility to identify the hints related to the material culture of ancient tattooing and to detect the “archaeological footprints” of that practice:

[...] relatively few archaeological identifications exist, and very little is known about the material culture of ancient tattooing outside of Oceania. In that region, a combination of detailed ethnographic accounts, modern continuation of traditional tattooing practices, and the use of highly-distinctive tattoo implements combine to illuminate the material culture of ancient tattooing and facilitate identifications of tattoo implements from the archaeological record.

Elsewhere, unfortunately, in the absence of comparative data, possible tattooing tools might have been subsumed by scholars into the traditional artefact classification schemes. In the area of the Eurasian steppes, only one archaeological site, *i.e.* Filippovka, seems to have yielded a sufficiently coherent group of artefacts to be interpreted as tattooing implements, satisfying the identification criteria emphasised again by Dieter-Wolf (*ibid.*):

[...] ancient tattoo needles did not travel as individual items, but instead functioned as part of larger toolkits. These data suggests that

the successful identification of a tattoo needle in an archaeological context requires the convincing association of that artefact with pigment remains, and may be supported by a suite of related artefacts.

The kurgan complex of Filippovka is located in the steppes south-west of the Urals Mountains, near the confluence of the Ilek and the Ural rivers, in the Orenburg Oblast, Russian Federation (fig. 1). There, first archaeological activities were carried out between 1986 and 1990 under the direction of A.Kh. Pshenichniuk, from the Ufa branch of the Russian Academy of Sciences (Pshenichniuk 2000, 2006; Pšeničnjuk 2012). Subsequently, a new series of excavations started in 2004, directed by L.T. Yablonsky, from the Urals Expedition of the Institute of Archaeology of the Russian Academy of Sciences in Moscow (Yablonsky 2010).

The burial ground of Filippovka is dated to the 4th century BCE, *i.e.* to the so-called “Early Sarmatian Age”: *c.* 400-200 BCE (Yablonsky 2010: 131).⁵ Of the twenty-nine kurgans attested at the site, three revealed evidence possibly correlated with tattooing practices (Yablonsky 2015, 2017).

Specifically, the excavations at burial no. 4 of kurgan 15, burial no. 4 of kurgan 29 and burial no. 2 of kurgan 1 – all three female burials – yielded a series of artefacts, mentioned as “Complex 1”, “Complex 2” and “Complex 3”, tentatively explained as part of tattooing toolkits (Yablonsky 2017: 217-226).

5. Sarmatians, reported in Herodotus (*Histories* IV.110-117) as descending from intermarriages between Scythians and Amazons, were a possibly Iranian-speaking tribal confederacy who initially formed along the Volga and in the Ural region, and later became the dominant political power in the area north of the Black Sea (Nikolaev and Pankova 2017: 327). As testified by Strabo, who mentioned the Sarmatians on several occasions in his *Geographica*, their culture and customs resembled those of the Scythians (*Geographica* XI.2.1) .

Complex 1, from the burial (no. 4 of kurgan 15)⁶ of a woman aged approximately fifty-sixty years at the moment of her death, consisted of a bronze mirror (Yablonsky 2017: fig. 15.1e), a bone pointed tool inserted within a small leather bag (Yablonsky 2010: fig. 5; 2017: figs. 15.1a-b, 15.2), a bone spoon made from an animal rib (Yablonsky 2010: fig. 6; 2017: fig. 15.1c), a stone pestle, a fragmentary square sandstone palette with four circular recesses at its corner and one smaller circular recess at its centre (Yablonsky 2010: fig. 7; 2017: figs. 15.1d; *here* figs. 9a-b), two iron needles, an iron knife, a piece of chalk and a small leather case.

Complex 2 was instead found within the burial (no. 4 of kurgan 29) of a young woman, approximately eighteen/twenty years old. Its most significant finds were represented by a circular stone palette with eight smaller circular recesses around its edge and a bigger one at its centre (Yablonsky 2017: fig. 15.3; *here* fig. 10), a bronze mirror (Yablonsky 2017: fig. 15.4a), a bone spoon (Yablonsky 2017: fig. 15.4b), two fossil shells (Yablonsky 2017: fig. 15.4c), an iron needle and an iron knife.

Complex 3, the richest in the series, came from the burial (no. 2 of kurgan 1) of a woman who was approximately thirty-five years old at the moment of her death (Yablonsky 2015: figs. 5-6). It featured, among other finds,⁷ two square sandstone palettes – with five and seven circular recesses

6. In a previous article by Yablonsky (2010), the kurgan's number was mistakenly reported as "16" in several captions.

7. Some of the artefacts found in this burial can be properly considered as "masterpieces" of jewellery and toreutics (Yablonsky 2015) and are renowned in the scientific literature.

(Yablonsky 2015: fig. 15; 2017: fig. 15.5; *here* figs. 8a-b), two pestles, six gold needles – three with a twisted handle and three with an eyed end (Yablonsky 2015: fig. 14.2; 2017: figs. 15.6d-i, 15.7, 15.8; *here* fig. 11), a decorated silver mirror with gilded handle (Yablonsky 2015: fig. 12.1), two small leather pouches containing black pigment (Yablonsky 2015: figs. 13.6, 13.10; 2017: fig. 15.9d), a small bronze *spatula* (Yablonsky 2015: fig. 13.2; 2017: 15.6c), three bone pointed tools (Yablonsky 2017: 15.9a-c), a decorated bone spoon (Yablonsky 2015: fig. 13.1; 2015: fig. 15.6b), a silver *pyxis* (Yablonsky 2015: fig. 13.9), two glass *unguentaria* (Yablonsky 2015: fig. 9), a hollowed-out horse tooth filled with red ochre, three iron knives and a walnut shell.

Considered by Yablonsky as coherent groups of interrelated implements (thus satisfying the identification criteria stressed by Dieter-Wolf), the objects of each “Complex” might have performed specific functions during tattooing practices. Stone palettes would have been used to grade, separate and mix tattooing pigments obtained grinding pieces of minerals and charcoal by means of pestles; small leather bags and pouches, as well as other objects (the hollowed-out horse tooth, walnut shells, shells and other small vessels), were possibly used as containers for tattooing pigments; spoons were used to transfer pigments from storage containers to the palettes and to stir tattooing ink; bone and bronze pointed tools were used to “draw stencils on the human skin or to add pigment into an open piercing”; gold needles with twisted handles and tapered flat edges were used for “hand-pocked” or “pricked-in” tattoos;⁸ gold

8. This kind of tattoos is created by poking the pigment into the skin's

needles with a sharp end and an eye for threading were used for “stitched-in”⁹ tattoos;¹⁰ knives with curved tip and gold inlays on the handle possibly had some “ritual purpose”; mirrors, instead, “were placed there for tattooing use in the afterlife” (Yablonsky 2017: 227-30).

As already remarked, one of the main problems in evaluating the material evidence for ancient tattooing in the archaeological contexts at the issue lies in the impossibility to find a direct correlation between specimens of preserved tattooed skin and artefacts interpreted as tattooing implements. At the present state of our archaeological knowledge, while the richest series of tattoos is documented at funerary barrows pertaining to the Pazyryk cultural and archaeological horizon in the Altai Mountains (kurgans nos. 2 and 5 at Pazyryk; kurgan no. 1 at Ak-Alakha-3; kurgan no. 3 at Verkh-Khaldzhin-2), the only evidence for possible tools for tattooing come from Filippovka (burial no. 2 of kurgan 1; burial no. 4 of kurgan 15; burial no. 4 of kurgan 29), in the Southern Urals, *i.e.* a somewhat far (approximately 2400 kilometres) and, also, culturally different (Sarmatian) archaeological context.

dermis by means of rapid multiple pricks.

9. “Stitched-in” tattoos are created by cutting the skin to a certain depth and then rubbing the resulting wound with pigment.

10. Previously, instead, Yablonsky (2015: 102) had maintained that needles with twisted handles were used to cut the skin, while needles with looped end were used for injecting dye into skin and suturing the skin cuts.

This circumstance undoubtedly represents a relevant obstacle to a detailed understanding of the actual relationship between the “final product” – *i.e.* tattoos, with their peculiar iconography and their complex and multifaceted meaning(s) and/or function(s) – and the “production process” – *i.e.* the exact way tattoos were etched on the skin of human bodies by the hands of tattoos “makers” (or, perhaps, tattoos “artists”).¹¹

This documentary *lacuna* might have especially affected the cogency of the functional interpretation of some objects discovered at Filippovka and possibly considered by L.T. Yablonsky as parts of tattooing toolkits, notwithstanding the absence of tattoos at the site. In particular, this could be the case of the stone artefacts tentatively interpreted as tattooing “palettes” used for grinding and mixing tattooing pigments of different colours (Yablonsky 2010: fig. 7; 2015: fig. 15; 2017: fig. 15.1d, 15.3, 15.5; *here* figs. 8-10). One of the main problems when dealing with them is represented by the circumstance that these objects always present a series of several circular recesses (at least five, maximum nine) of different dimensions, thus implying the preparation of different pigments and, hence, the practice of polychrome tattooing.¹² Moreover, polychromy would seem even more probable when taking into account the traces of coloured pigments

11. Sharing an opinion previously maintained by N.V. Polosmak, Iwe (2013: 91) stressed that “The artists of the images on human bodies were experienced and were most probably a small group of talented masters working at a high level [...] these people can be associated with a high rank in society, as tattooing was presumably a sacred ritual”.

12. As explicitly asserted by Yablonsky (2017: 228) and also maintained, following the latter’s view, by Yatsenko (2013: 100) and (more cautiously) by Pankova (2013: 85).

found in burial no. 2 of kurgan 1 at Filippovka, in some cases near the palettes: a pinkish yellow inorganic sample composed of a mixture of sedimentary iron minerals, red ochre from a mineral of the hematite family and yellow ochre from a mineral of the limonite family (Yablonsky 2017: 228).

However, although possible, the alleged existence of polychrome tattoos does not find any confirmation on the basis of the archaeological evidence from Filippovka (mummified bodies with tattoos are not attested at the site, as stated before) or from elsewhere in the surrounding area and for the period presently at the issue. The tattoos so far attested on the mummified bodies from the Iron Age “frozen” kurgans in the Altai Mountains are indeed all characterised by a bluish tint obtained using a soot-based pigment,¹³ without any exception (Rudenko 1970: 112-13; Barkova and Pankova 2005: 48; Iwe 2013: 91; Pankova 2013: 78, 85; 2017: 87).¹⁴ Moreover, evidence for similar stone palettes seems to be rather scanty and comparable artefacts are attested only at some geographically and chronologically distant site.

The first artefact was put into light during the activities of the Uzbek-Italian archaeological mission at Kojtepa (Abdullaev and Genito 2014), a site in the area of Samarkand, Uzbekistan, ancient Sogdiana (fig. 1), dated from the 3rd

13. The utilisation of soot as dyeing agent for tattooing ink seems to be a widespread practice attested in several ancient and modern cultures around the world (Della Casa and Witt 2013: 28-29, 31, 43, 62, 69-70; Krutak and Deter-Wolf 2017: 48-49, 117, 151, 244, 272).

14. Nevertheless, evidence for red ochre-based tattoos is documented at some Bronze Age burials in the steppes of the Don Region, between the Caspian Sea and the Black Sea (Shishlina *et al.* 2013: 73).

century BCE to the 4th-6th century CE.¹⁵ There, during the 2015 excavation season, a fragment of a stone artefact featuring on its surface circular recesses was found and, due to the remarkable similarity with the evidence from Filippovka (especially the “Palette 2” from kurgan 1; *here* fig. 8b), was tentatively interpreted as a stone mixing palette utilised for tattooing practices (Genito and Paradaev 2016: 157, fn. 8, fig. 20; *here* fig. 12). One should stress, however, that further evidence for ancient tattooing has never been recovered from the site or from the area around Samarkand (or elsewhere in ancient Sogdiana).¹⁶

Another object strikingly similar to the square stone palettes with five circular recesses found at burial no. 2 of kurgan 1 and burial no. 4 of kurgan 15 at Filippovka (*here* figs. 8a, 9a-b) was noticed by the present writer among the archaeological materials stored in the warehouse of the “Firuzabad Cultural Heritage Base” of the Iranian Cultural Heritage Handicraft and Tourism Organization (ICHHTO) at Firuzabad (Fars Province, Iran; fig 1).¹⁷ Apparently of uncertain archaeologi-

15. Between September and October 2016 the author had the opportunity to join the activities of the Uzbek/Italian Archaeological Mission at Kojtepa, co-directed by Mukhtar Paradaev (Institute of Archaeology of the Academy of Sciences of Uzbekistan) and by Bruno Genito (“L’Orientale” University of Naples).

16. According to Yatsenko (2013: 100, fig. 5.6), ritual facial painting was instead common in Sogdiana, as testified, for instance, by a terracotta of the 2nd-3rd century CE from Afrasiab, representing a (female?) face with a “V” shaped motif painted on the cheeks.

17. In the early autumn of 2018, the author had the opportunity to visit the ICHHTO “Firuzabad Cultural Heritage Base” headed by Alireza Askari Chaverdi (ICHHTO and University of Shiraz), who kindly gave the permission to visit also its storehouses.

cal provenance, but surely found in the area of the Firuzabad County, the object – unfortunately unpublished – is probably made of a local greyish limestone. Measuring approximately $8.5 \times 8.5 \times 2$ centimetres, it features four circular recesses (each with a diameter of *c.* 2.5 centimetres) carved at its corners and a slightly bigger circular recess (diameter: *c.* 3 centimetres) carved exactly at its centre. Notwithstanding these morphological similarities, it is important to stress that the area of Firuzabad, located at approximately 2500 kilometres from the kurgans at Filippovka (fig. 1), is renowned from the historical and archaeological point of view because it was the first centre of the political power of the Sasanian dynasty.¹⁸ That means a geographical area and a chronological horizon totally different from the one represented at Filippovka and also a cultural horizon (Sasanian Iran) where tattooing seems to be unattested.

Given these rather numerous anomalies and uncertainties, it would seem advisable to formulate alternative hypotheses about the function of those stone artefacts with circular recesses on their surfaces.

A possible important point in this respect could be represented by the fact that the stone “palettes” from Filippovka were all found inside female burials and in correlation with several other kind of artefacts (*e.g.* bronze mirrors, small leather bags and pouches containing pigments, pestles, a small bronze *spatula*, bone spoons, bronze and bone sticks, glass *unguentaria*, a small silver *pyxis*),¹⁹ which – although collectively in-

18. See Huff 1999, with related bibliography.

19. See Yablonsky (2015: 102-103, figs. 9, 13; 2017: 217-230, figs. 15.1-15.4, 15.9).

terpreted by the excavator as tools related to possible tattooing practices – can be also considered as simply pertaining to more common female sets for cosmetics.²⁰ Hence, the stone palettes from Filippovka would be more simply considered as specimens of “toilet trays” for cosmetic purposes.²¹

The circumstance that the aforementioned objects from Filippovka were all found in female burials was instead considered by Yablonsky as an evidence “perhaps indicating that tattooing was a female prerogative and a female-centered profession” (Yablonsky 2017: 230).²²

Another possible functional interpretation for the stone artefacts at the issue might instead focus on the presence of the peculiar circular recesses attested on their surface. In scientific literature, several objects are known (from both archaeological excavations and ethnographic researches), which are interpreted as game boards utilised to play “mancala”. “Mancala” (from the Arabic word *manqala* – in its turn derived from the Arabic word *naqla*, lit. “move”) is a collective term to indicate a class of two-player turn-based strategy board

20. In this case, the peculiar golden needles found in the burials should be simply interpreted as funerary ritual objects referring to sewing, a traditionally female-centred activity.

21. It is interesting to recall that Yatsenko (2013: 100), discussing about ritual facial colouring in Sarmatian women, reported a passage by Pliny the Elder (*Naturalis Historia* XXII.2) recording that Sarmatian women decorated each other’s faces during important rituals.

22. Probably following Yablonsky’s argument, also Stepanova and Pankova (2017: 96) stressed the role of women in tattooing, reporting ethnographic parallels from the Arctic, where women are usually preferred as tattoo artists by virtue of their extensive training as skin seamstresses and, consequently, their precision when stitching the human skin with tattoos.

games which were played in the past and are still played today almost all over the world, locally known with several different names and characterised by several variations (Murray 1952; Bell 1969: 113-124; Russ 2000). The games are played on boards with a number of “pits” and utilising a series of “counters” (*e.g.* stone pebbles, seeds, coins, or shells); moves are made by “sowing” (a form of counting) and allow each player to capture counters, until the majority of the counters is “conquered” by the winner (Donkers *et al.* 2003: 135-136). “Mancala boards” are attested in several ancient and modern cultures and in a wide range of different materials (*e.g.* stone, wood, metal), shapes and dimensions (de Voogt 1997; 1999; 2001), but they are always characterised by the presence of a variable number of circular recesses (“pits”), often showing different proportions (figs. 13-14),²³ just like in the case of the stone artefacts at the issue.

However, although alternative functions can be figured out and notwithstanding the absence of a direct correlation with tattooed bodies, the hypothesis that the peculiar stone palettes from Filippovka were used as tattooing implements should remain as one of the possible functional interpretations for this class of artefacts, at least while waiting for further and more grounded archaeological evidence.²⁴

23. Ancient mancala boards are therefore clearly distinct from boards utilised to play other ancient board games (cf. Schädler and Dunn-Vaturi 2009).

24. Moulded and glazed ceramic objects of a rather similar shape were produced also in Islamic times (from the second half of the 8th-9th century onwards) and are generally labelled as “condiment-dishes”. See, for instance, the specimen preserved in the British Museum (inv. no. 1889.0706.75; 15.5 × 15 centimetres) made in Egypt by an Iraqi potter, as the Arabic inscription on its surface states (Lane 1939: 64, fig. 7).

As previously discussed, the peculiar climatic and environmental factors involved in the preservation of human skins in the Pazyryk culture burials are extremely difficult to be encountered elsewhere in the Eurasian steppes. For this reason, the only chance to retrieve archaeological evidence from both tattooed skins and tattooing implements in the same context is probably limited to the area with permafrost-affected soils coincident with the Iron Age²⁵ Pazyryk archae-

25. Tattooing probably continued to represent a common cultural practice in the area also during later periods, as shown by the evidence recovered from grave no. 4 at Oglakhty I (Nikolaev and Pankova 2017: 327-329; Pankova 2013; 2017: 89-95), a necropolis located on the left bank of the Yenisei river, in the Minusinsk Basin, Khakassia (Russian Federation; fig. 1). There, the mummified body of a man from a burial excavated between 1969 and 1973 – nowadays dated (by virtue of wiggle-matching analyses of radiocarbon dates taken from logs used to construct the burial chamber) to the late 3rd-early 4th century CE (387 ± 15 CE), *i.e.* an early stage of the so-called Tashtyk archaeological culture (Pankova *et al.* 2010) – unexpectedly revealed important evidence for ancient tattoos long after its discovery. The body, which does not show any evidence for intentional mummification procedures, was mummified only as a result of the peculiar climatic and ecological setting of the burial. In the frame of restoration activities carried out in 2003 at the laboratories of the State Hermitage Museum in St. Petersburg, clothing was removed from the mummy and some faded drawings were noticed for the first time on its skin (Pankova 2013: fig. 3). On a closer inspection and after photographs in reflected infrared rays were taken, a group of 13 figures was detected, tattooed – with a soot-based dark blue pigment (Pankova 2013: 78; 2017: 87) – on the shoulders, the chest, the scapulae, the base of the nape and the arms, representing groups of dots, thick parallel stripes, series of “commas”, antlers, a bow with arrow and some big “arachnoid” motifs (Nikolaev and Pankova 2017: fig. 187; Pankova *et al.* 2010: fig. 4; Pankova 2013: figs. 4-6, 7a-b,

ological horizon.²⁶ It is therefore extremely interesting that the geographical diffusion of this horizon seems nowadays considerably wider than previously thought, testified by an increasing number of excavated burial complexes.

In a very recent paper about the distribution of burial sites related to the Pazyryk culture in the Altai Mountains, Ochir-Goryaeva (2017: 330, fig. 1) listed:

in total 569 Pazyryk burials from 135 Gorny Altai cemeteries and 212 mounds, *i.e.* 37.3% of their total number, were recorded to contain accompanying horse burials [...] represented by two major chronological groups of kurgans: those of the Early Pazyryk stage (mid 6th and 5th centuries BC) and those of the Late Pazyryk stage (4th and 3rd centuries BC).

Following geographic criteria, the aforementioned burials can be subdivided into an “Eastern Area of Pazyryk Culture” (Ukok valley, Chuya Valley and Ulagan Valley) and

8c, 9a, 10b; 2017: figs. 5.19-5.23). The discovery of this new set of tattoos by means of the method of infrared photography paved the way for the infrared photographic documentation of the mummified bodies from Pazyryk mounds nos. 2 and 5 carried out in October 2004 at the same Institution (Barkova and Pankova 2005: 48-49).

26. One should not neglect, however, 3rd the evidence represented by the poorly documented but nevertheless important traces of tattoos on mummified bodies from the Tarim Basin in the Xinjiang Uygur Autonomous Region of China, dated from the 1st millennium BCE to the first centuries CE (Mallory and Mair 2000: 142, 189, 193, pls. VII-VIII) and mentioned also by Pankova (2013: 83, fig. 1; 2017: 96, fig. 5.1). Similarly important in this respect is also the evidence for tattooing identified on some skeletons – where they were transferred from the skin after peculiar decomposition processes – from the Bronze Age “Catacomb Culture” of the steppes (around 2600 BCE) in the Don Region, between the Caspian Sea and the Black Sea (Shishlina *et al.* 2013).

a “Western Area of Pazyryk Culture” (Bukhtarma Valley, Kannsk-Uimon Valley, Ongudai Valley, Upper Katun Valley), showing only some minor differences in terms of archaeological evidence (Ochir-Goryaeva 2017: 353, fig. 2; *here*, fig. 15):

As for the funeral rite of both areas of the Pazyryk culture, it should be pointed out that it is of a uniform character, which indicates its largely homogenous ethno-cultural nature. The differences found between the two areas seem quite natural if the conditions of the isolated mountain valleys, divided by taiga high mountain ridges, are taken into consideration.

In recent years, moreover, the considerable extension of the area with evidences ascribable to the Pazyryk archaeological horizon has been further demonstrated thanks to the first excavations of Pazyryk type burials in Mongolia (Törbat *et al.* 2009; Turbat *et al.* 2011; Batsukh 2016; Erdene-Ochir and Batsukh 2016). In the latter country, indeed, further important evidence related to ancient tattooing was discovered in 2006 from the main burial in kurgan no.1 of the Olon Kurin Gol-10 necropolis (fig. 1). There, a Russian-German-Mongolian team excavated the burial (dated around 393 BCE on the basis of recent radiocarbon analyses; cf. Erdene-Ochir and Batsukh 2016: 111) of a male individual, approximately 40-50 years old and interpreted as a warrior, whose body laid within a wooden funerary chamber that had escaped looting, accompanied by two horses (Molodin *et al.* 2008; 2012; 2016; Parzinger *et al.* 2009). Notwithstanding its poor state of preservation, the skin of the mummified body revealed the presence of a tattoo representing a fragmen-

tary geometric motif (Molodin *et al.* 2012: figs. 105-106; Bonora 2018: 52-53).

Unfortunately, the preservation of all these Pazyryk culture burials is nowadays severely menaced by increasing anthropogenic impact. In addition to the “traditional” threat represented by robbers and looters, the peculiar although fragile environmental and climatic balance that for millennia ensured the conservation of these “frozen” tombs is today endangered by harsh climatic changes. Global warming, indeed, is causing the permafrost in this part of the world to thaw, especially in the extremely vulnerable areas of sporadic and discontinuous permafrost near the lower boundary of alpine permafrost (Bourgeois *et al.* 2007; Marchenko 2008; Molodin 2008), *i.e.* the areas where many famous “frozen” kurgans were excavated. For this reason, a project entitled “Preservation of the Frozen Tombs of the Altai Mountains” was carried out in 2005-2007 by the UNESCO World Heritage Centre with financial support from the UNESCO/Flanders Funds-in-Trust (Tresilian 2008). Moreover, inscribed in the World Heritage List as “Golden Mountains of Altai” since 1998, the part of this area encompassed within the boundaries of the Russian Federation is monitored yearly by the World Heritage Committee in order to ensure the preservation of its unique environmental features.

The continuation of the archaeological researches in this wide but environmentally fragile territory would seem the only possible way to shed a new and hopefully determined light on the several debated issues concerning ancient tattooing practices among the mobile pastoral communities that thrived in the area during the Iron Age.

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Fig. 1. Map showing the location of the main archaeological sites mentioned in the text (satellite view after Google Earth™).

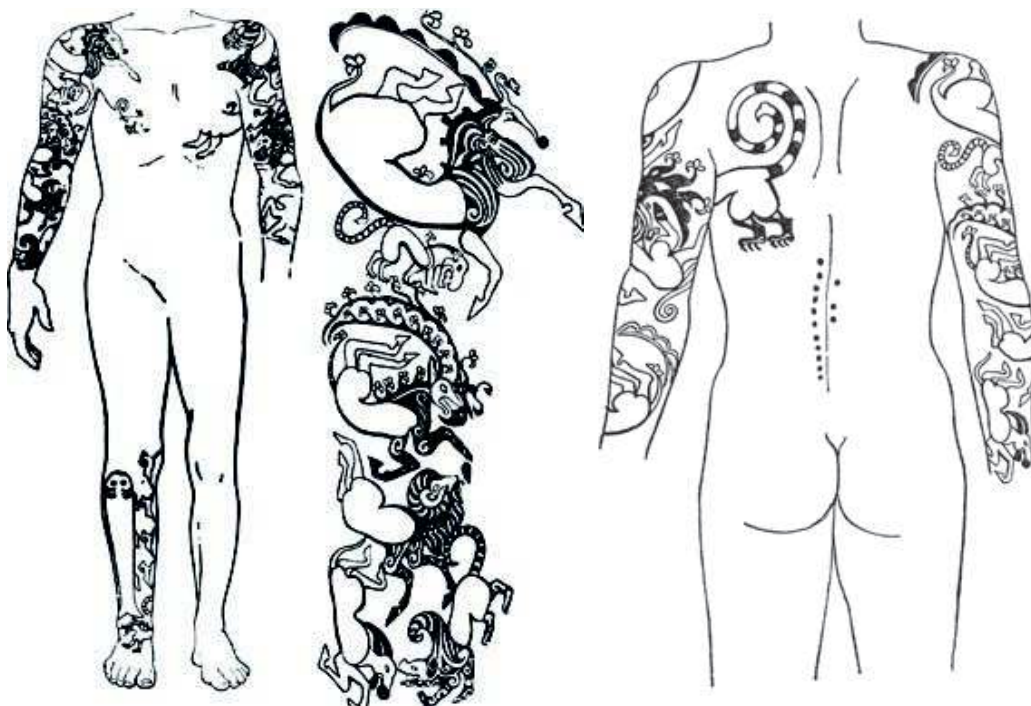


Fig. 2. Tattoos on the front (fig. 2a) and back (fig. 2b) of the male body from kurgan 2 at Pazyryk (after Rudenko 1970: figs. 51-53).

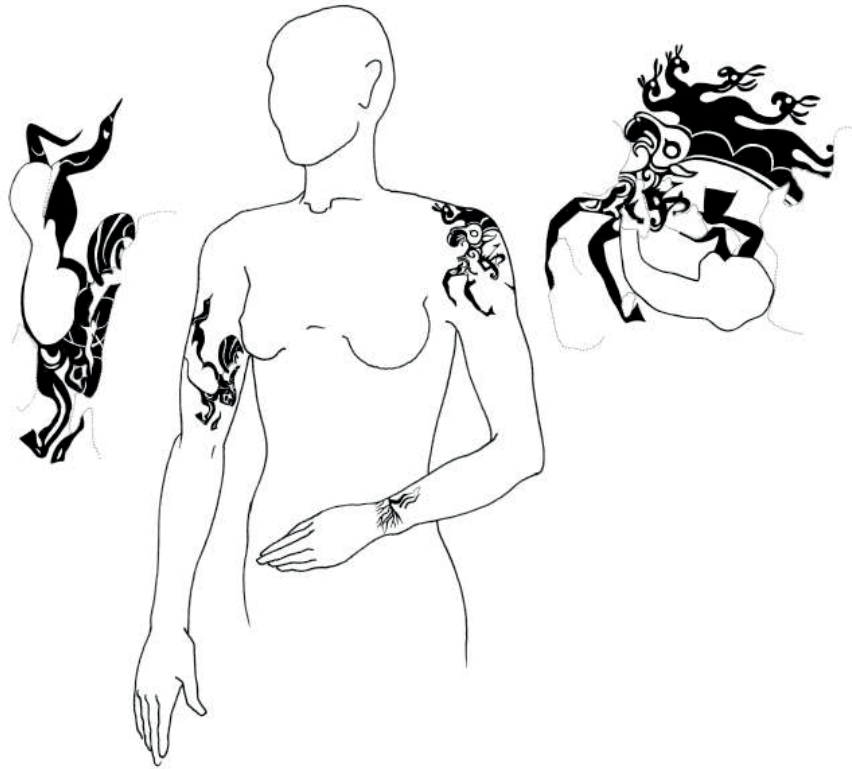


Fig. 3. Tattoos on the female body from kurgan 2 at Pazyryk (after Pankova 2017: fig. 5.2).

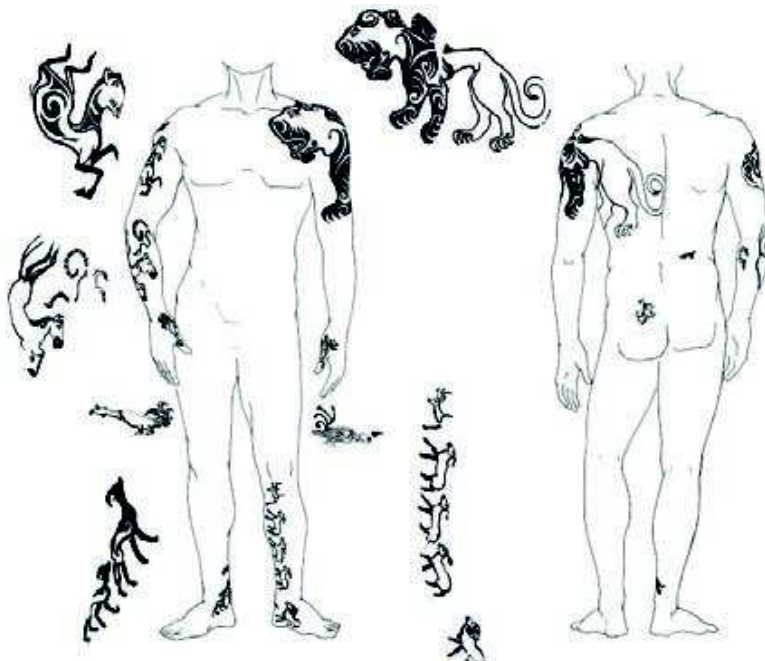


Fig. 4. Tattoos on the male body from kurgan 5 at Pazyryk (after Pankova 2017: fig. 5.3).

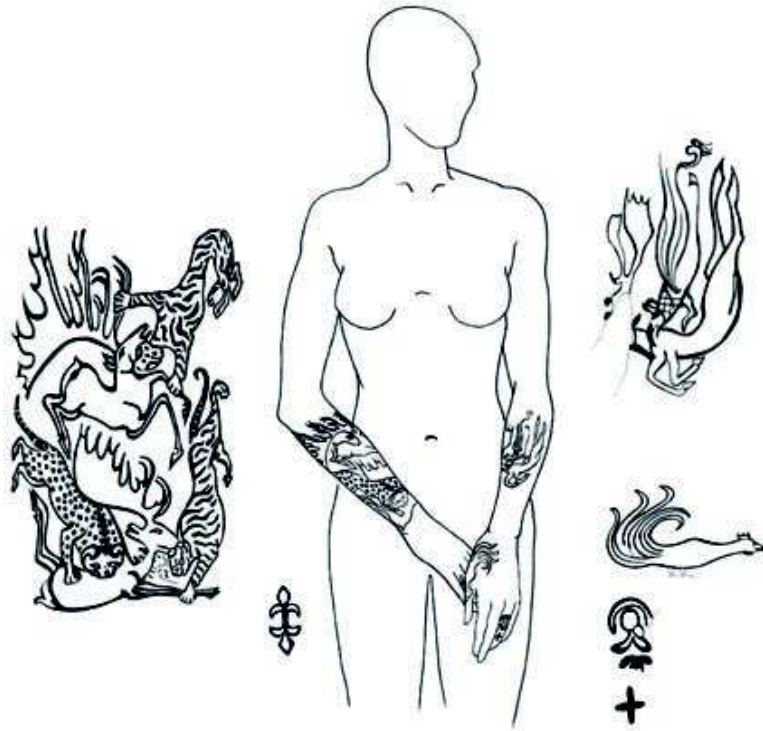


Fig. 5. Tattoos on the female body from kurgan 5 at Pazyryk (after Pankova 2017: fig. 5.11).

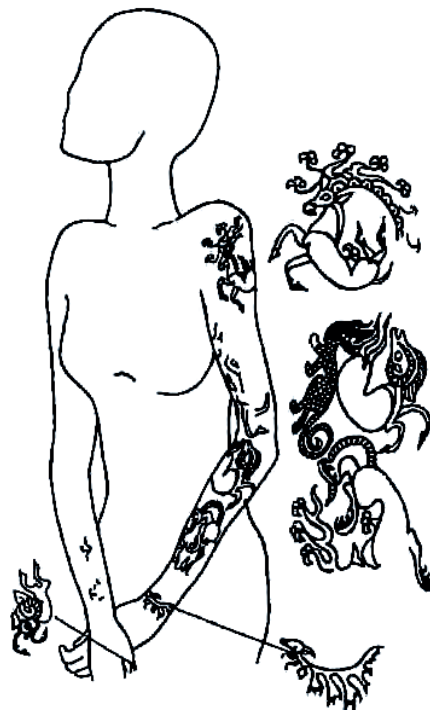


Fig. 6. Tattoos on the female body from kurgan no. 1 at Ak-Alakha-3 (after Iwe 2013: fig. 5.11).



Fig. 7. Tattoos on the male body from kurgan no. 3 at Verkh-Khaldzhin-2 (after Iwe 2013: fig. 5.15).

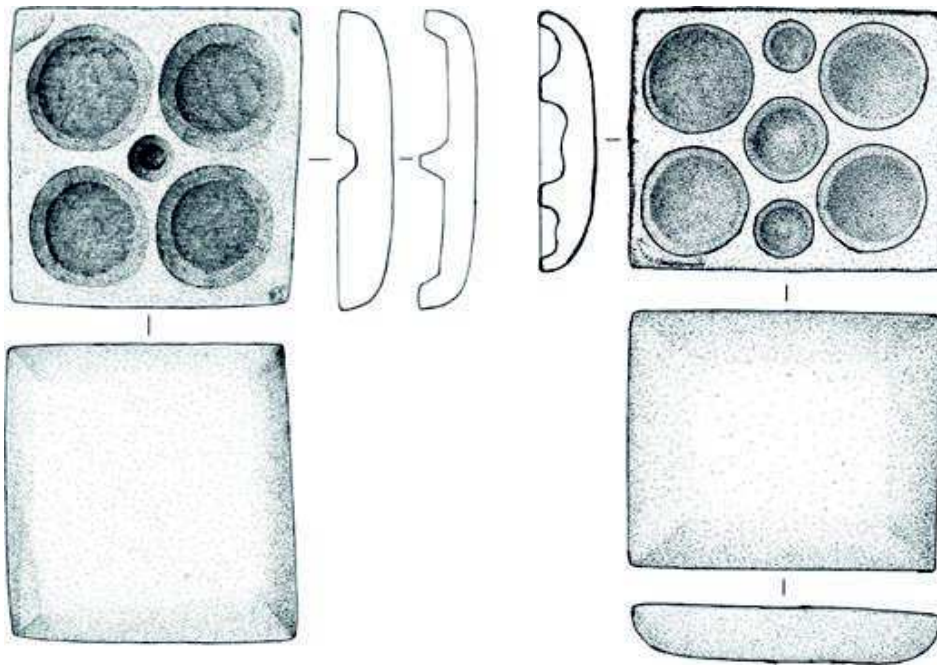


Fig. 8. Square stone palettes with five (fig. 8a) and seven (fig. 8b) circular recesses from burial no. 1 of kurgan 2 at Filippovka (after Yablonsky 2015: fig. 15).

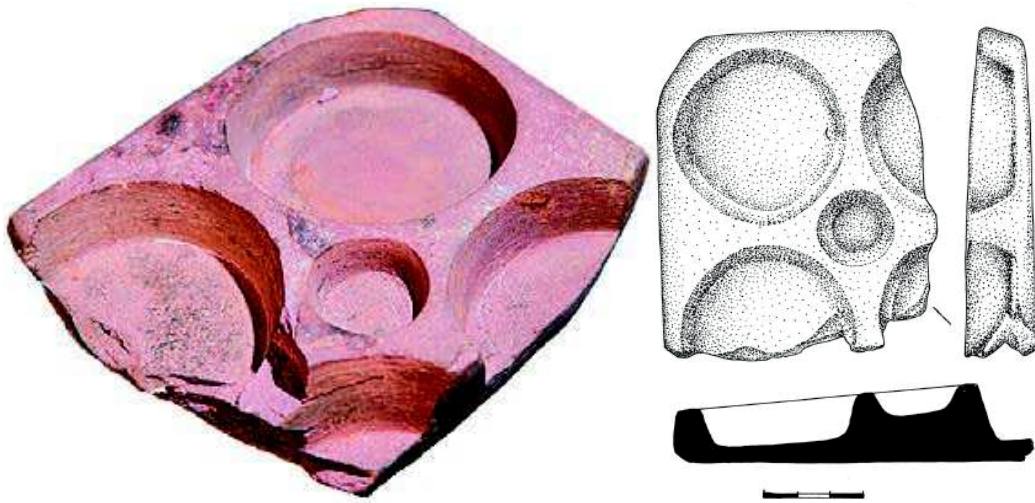


Fig. 9. Photograph (after Yablonsky 2010: fig. 7) and drawing (after Yablonsky 2017: fig. 15.1.d) of a fragmentary stone palette from burial no. 4 of kurgan 15 at Filippovka.

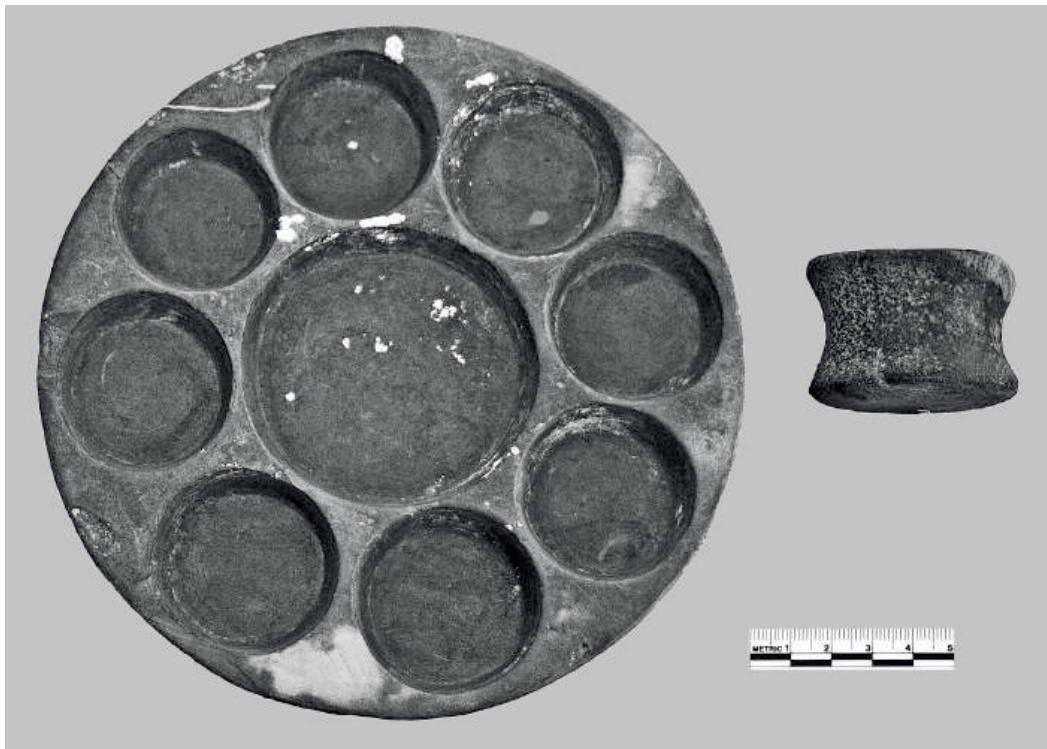


Fig. 10. Circular stone palette and argillite pestle from burial no. 4 of kurgan 29 at Filippovka (after Yablonsky 2017: fig. 15.3, detail).



Fig. 11. Golden needles with looped (first three top) and twisted ends (down) from burial no. 2 of kurgan 1 at Filippovka (after Yablonsky 2015: fig. 14.2).



Fig. 12. Fragment of a stone palette from Kojtepa (after Genito and Paradaev 2016: fig 20, detail).



Fig. 13. Modern wooden mancala-type boards from Ethiopia (front) and Zaire (back) with typical circular recesses (after de Voogt 2001: fig. c).



Fig. 14. Modern wooden mancala-type board from Syria with typical circular recesses (British Museum inv. no. 2008,6027.1).

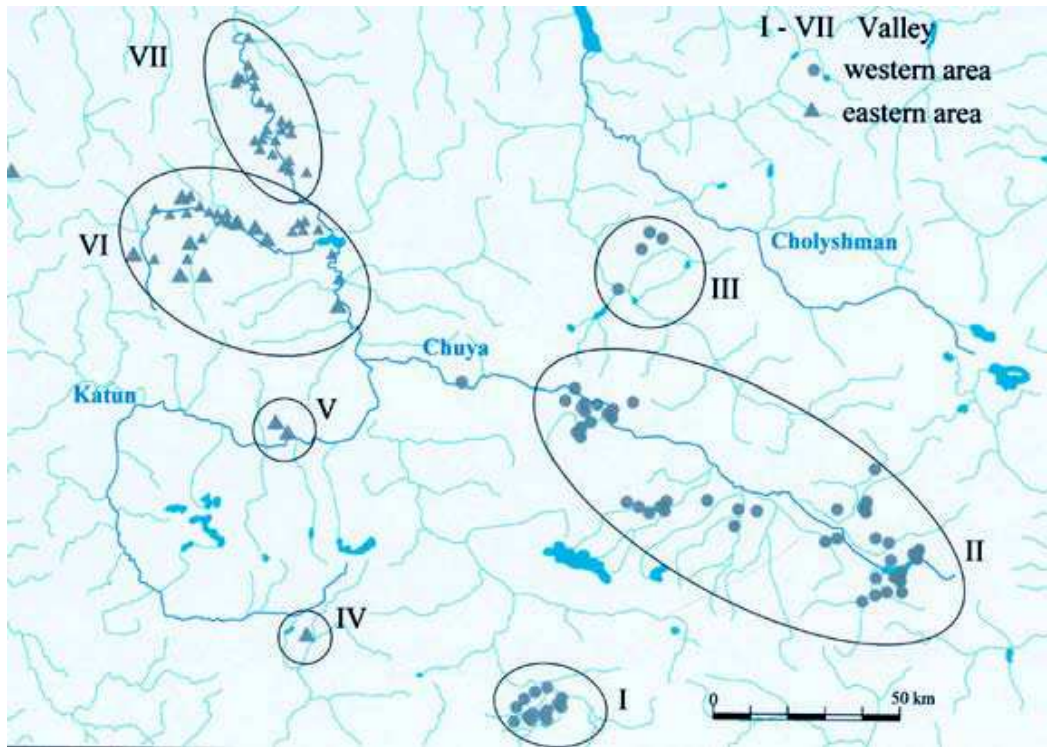


Fig. 15. Map showing the valleys of the “Eastern Area of Pazyryk Culture” (I: Ukok valley, II: Chuya Valley, III: Ulagan Valley) and of the “Western Area of Pazyryk Culture” (IV: Bukhtarma Valley, V: Kansk-Uimon Valley, VI: Ongudai Valley, VII: Upper Katun Valley) in the Altai Mountains (after Ochir-Goryaeva 2017: fig. 2).