Rock Art of Tamgaly, Kazakhstan

Introduction
Central Asia offers a large number of rock art sites with similarities in chronology, techniques and iconography, both in Uzbekistan (Sarmishsai), in Kyrgyzstan (Saimaluu-Tash, Cholpon-Ata) and in Kazakhstan.

In Kazakhstan, the main sites are located in the south, especially between the Karatau Mountain range (Arpauzen) and the Chinese border (Eshkiolmes, Bayan Zhurek, Usek) (Fig.1). In the centre of this area, which is as wide as Italy, there are two important sites: Kulzhabasy, with approximately 4000 engravings and, 50 km to the east, Tamgaly with around 5000 petroglyphs.

The site of Tamgaly, located 125 km northwest of Almaty, was discovered in 1957 by Anna Maksimova (1923-2002). In the following years, she researched the rock engravings with Alexei Maryashev and Antonina Ermolayeva, while archaeological excavations were later led by Alexei Rogozhinsky.

In 2004, Tamgaly was listed as a World Heritage site by virtue of “the dense and coherent group of petroglyphs, with sacred images, altars and cult areas, together with their associated settlements and burial sites (which) provide a substantial testimony to the lives and beliefs of pastoral peoples of the Central
Asian steppes from the Bronze Age to the present day” (Unesco).

Environment of the Rock Art
Tamgaly is located at a height between 870 and 950 meters in the Chu-Ili Mountains bordering steppes (Fig.2). This middle-high mountain range offers fertile soil, natural springs and protection against the sun in summer and against the wind in winter. For these reasons, it was often used as a summer and winter camp, and local populations still raise livestock there.

The main canyon of Tamgaly is oriented north-south with a width between 20 and 100 meters and is 1200 meters long (Fig.3). In spring and fall, a small stream flows in the middle of it.

Around 3000 rock engravings are concentrated in five groups in a 500 by 400 meter area in this main canyon, while 2000 more petroglyphs are located in the periphery over an area of 6x3 km.

The engravings have been made on horizontal and vertical outcrops on the slopes of the hills. The rocks consist of argillaceous sandstone (Francfort et alii 1995: 169).

Main groups of petroglyphs
The five main groups of petroglyphs are concentrated in the northern part of the central canyon. Four groups (I, II, III and V) are located on the eastern slopes, while Group IV is located on the western slopes. The first three groups are concentrated in a length of ca 150 m, while Groups IV and V are short of ca 250 m from the third one. Between Group III and Groups IV and V, the canyon forms a wide area without any petroglyphs on the hills.

Group I with around 100 petroglyphs is situated at the upper part of the slopes at the entrance of the canyon. The engravings are hidden on the hill among the rocks. In this group and also in Group II, there are some representations of human beings, most probably shamans, clothed animal skins (Fig.4). The other panels show scenes of hunting and many animals (goats, horses, wolves and an onager).

Group II, around 400 engravings, is located at the lower part of the hill. The petroglyphs
are placed on two or three stages and most of them are clearly visible from the foot of the hill. There are some hidden representations of worshippers and shamans (Fig.4), as well as two representations of sexual intercourse (Fig.5). The principal animals, in order of importance, are the deer, the goat, the bull and the horse.

Group III is situated on the lower part of the hill, at the entrance of a small secondary canyon. Around 800 petroglyphs are numbered there on three stages. The engravings are clearly visible from the foot of the hill and also from another small hill in front of it (Fig.6). Group III is dedicated to cultic scenes and to the bull. The main panels show human beings dancing or participating in a cult, particularly in relation to a bull or a horned-horse, as for example a sun-head deity standing on a bull.
Fig. 6: View of Group III
(Fig.7-9). Furthermore, there are representations of hunting scenes, dogs and goats, a chariot, and a calf inside the body of a cow (Fig.10).

The approximately 700 engravings in Group IV are mostly situated on the top of the hill and are clearly visible from the canyon. There are accessible through a small path leading to a platform with a panel showing dancing anthropomorphs surrounding a woman in childbirth under seven sun-head deities (Fig.11). It could be interpreted as a representation of human beings celebrating a cult by dancing on the wide area on the foothill of Group IV with the symbolic presence of the deities on the top of the hill. The other petroglyphs present two other sun-heads, hunting scenes, goats, bulls, deer and camels (Fig.12).

Group V is the most important, with around 1000 pictures, among them twelve sun-heads. This group is situated on an eastern hill in front of Group IV before an opening of the canyon to a larger valley. The petroglyphs are arranged from the foot to the top of the hill. At the foot, panels show worshippers and shamans (Fig.4), and just above the foot, two sun-heads. Just below the top of the hill, a panel represents three sun-head and a chariot (Fig.13-15). The principal animals, in order of importance, are the bull, the goat, the deer, the horse and the onager. The majority of these engravings are clearly visible, but some
Fig. 11: Panel with seven sun-heads and dancers, Group IV

Fig. 12: Hunting scene with bulls, goats, dogs and a camel, Group IV
Fig. 13: Sun-head and onager, Group V

Fig. 14: Sun-head and bull, Group V

Fig. 15: Chariot, Group V
are also hidden, as for example some sun-heads (Fig.16).

The so-called Sunkarsay complex is situated in a small valley about 700 meters north-west of the main canyon of Tamgaly. The petroglyphs are situated around 150 m into the valley on the foothills and on the slopes of its northern part. The hill is between 890 and 920 meters high. The Sunkarsay complex contains approximately 150 panels with more than 500 drawings. The engravings are mostly arranged on the lower part of the hill. The number of petroglyphs decreases with elevation. On the foothills, there are representations of camels and of Turkish riders with banners (Fig.17), while panels in the middle of the hill show hunting scenes: a Turkish rider hunting with a falcon (Fig.18), for example, as well as deer and goats from the Saka period (Fig.19).

**Technique, Style and Chronology of the petroglyphs**

The engravings were executed on rocks with dark patinas by picking at them with a stone or a metal tool, in order to depict a motif on the brighter layer under the patina. This technique was used from the Bronze Age until the Turkic medieval period.

A few petroglyphs were also created by polishing the surface with a stone tool. This technique was used during the Turkic medieval period.

The rock art of Tamgaly can be divided into four or five chronological periods, from the Middle Bronze Age until the Modern periods. However, it flourished during the Bronze Age and begun to decline during the Iron Age. The petroglyphs from the main canyon are mostly from the Bronze Age, while the petroglyphs...
from the periphery were primarily engraved during the Iron Age and the Turkic medieval period.

The Middle Bronze Age (1500-1200 BC) is characterised by a three-dimensional and realistic style. The figures are dynamic and can be isolated or associated with others in a scene. The repertoire is diverse, comprising sun-head deities, shamans, worshippers, bulls, camels, horses, deer, wolves, goats and chariots. The figures have a median size of 20x20 cm (Rogozhinsky et alii 2004: 52-53; Sala & Deom 2005: 55).

For Alexei Rogozhinsky and Renato Sala, figures would become smaller with a "linear and bi-dimensional style" during the Late Bronze Age (1200-900 BC) and the repertoire would be reduced, though with some representations of sun-heads and a new motif of horned-horses (Rogozhinsky et alii 2004: 55; Sala & Deom 2005: 55, 99). It is yet not clear which engravings could effectively be attributed to this period, and the stylistic differences between Middle and Late Bronze Age seem quite artificial. For example, the average size is in contradiction with some panels attributed to the Late Bronze Age. And how exactly is it possible to date petroglyphs which are smaller or bigger than the average size? Furthermore, the depictions of horned-horses are actually in the same style as bulls from the Middle Bronze Age and are definitely not in a "linear and bi-dimensional style" (Fig.6). It seems vain, therefore, to periodise the petroglyphs of Tamgaly between the Middle and Late Bronze Ages and we subscribe to the opinion of chronologically regrouping both periods (Baipakov et alii: 70).

During the Early Iron Age or Saka period (800-300 BC), new locations for rock art were chosen, apparently without regard for the quality of the rock. Large panels were favoured, with repetition of the same motif, which created a dynamic effect. The repertoire is limited to hunting scenes, goats and deer with antlers like a fir tree (Fig.19). The style is often characterised by spirals or by the reduction of the figure to a couple of lines.

The Turkic medieval period (700-1300 AD) is characterised by the polishing technique and the renovation of older petroglyphs. In some cases, they still used the picking technique.
and created palimpsests, which means that they made new petroglyphs superimposed on former ones, without attempting to preserve the older petroglyphs. The new repertoire shows riders with banners, on horses or camels, hunters with falcon and tribal signs called “Tamga”. They still depicted goats and dogs, but neither bulls nor wolves.

The Modern period (1500-1960) shows few petroglyphs: a couple of inscriptions from the Dzungar Khanate period (Beginning of the 18th c.), some engravings of horses and goats made by Kazakh shepherds in the 19th century and some inscriptions (names, references to Lenin, etc.) as well as depictions of soldiers, airplanes, red stars, tanks and automobiles made during the Soviet era.

Main themes of Tamgaly

Some themes appear more frequently in Tamgaly during the Bronze Age, for example the bull, the sun-head or the worshipper. In contrast, there are only five chariots, which is few compared to other Kazakh sites like Arpauzen (Kadyrbaev & Maryashev 2007: 44ff), Eshkiolmes (Maryashev & Goryatshev 2002: 28-29) or Usek (Hermann 2011b: 13, 22ff).

During the Saka period, the hunting scene is the most frequent theme, which does not differ from other Central Asian sites. The same can be said about the Turkic period, when the motifs of riders with banners, tribal signs and hunting scenes were very frequent (Sala & Deom 2005: 56-57).

Analysis of the following themes concerns engravings from the Bronze Age only:

**Sun-head:** 30 sun-head deities were numbered in Tamgaly but only 26 are conserved today due to the fact that one was destroyed by an earthquake and three formerly published sun-heads could not be found again (Rogozhinsky 2009: 53). One sun-head was found on a stone used in a kurgan and four are located in the periphery of the canyon. The 25 others are divided into the five groups as following: 2 in Group II, 2 in Group III, 9 in Group IV and 12 in Group V (Fig.20).

Only four sun-heads have sexual features, i.e. one in Group II and three from the periphery. Their head was drawn with several circles, with one circle with rays or dots inside and outside of it, or with a full head with dots or rays going out of it.

Sun-heads were also found in other sites of Central Asia with approximately the same features, for example in Saimalu-Tash (Kyrgyzstan) and in Kazakhstan in Kulzhabasy, in Eshkiolmes and in Baikonur.

In Karakyr (Potapov 2007), seven km north-west from Tamgaly, and in Gorny (Hermann, unpublished), 25 km to the south, another kind of sun-head was found that we call moon-head due to the fact that a crescent moon was drawn over the head of an asexual anthropomorph (Fig.21). Seven moon-heads were engraved in Karakyr, while there are five moon-heads and two sun-heads in Gorny. The site of Kaishi in the valley of Usek (Hermann 2011b: 11) also displays the coexistence of a sun-head with a moon-head (Fig.21), but this site is localised 350 km north-eastern of Tamgaly.

If we consider that the sun-heads are representations of deities and that Tamgaly is a sanctuary due to the numerous cultic scenes (Hygen 2001), we can postulate that Tamgaly was a place of worship for the sun, whereas Karakyr and Gorny were sanctuaries for the moon in the same micro-regional cultic area.

**Bull:** There are many representations of bulls, most of them in Groups II, III and V. They are well recognisable with their horns but are always drawn without ears, what also allow us to differentiate them with horned-horses (see below). They usually have a fully-pecked body but the bodies of the oldest ones are filled in with only a couple of lines (Fig.12). This stylistic representation can also be found in Kulzhabasy, about 50 km south-west of Tamgaly (Sala & Deom 2005: 90; Baipakov & Maryashev 2004).

Bulls are four times associated with sun-heads (Fig.9 and 14), once in Group II, once in Group III and twice in Group V. In rock art of Central Asia, it seems that this kind of association is only attested in Tamgaly. The association of bull and sun-head can be considered as an antagonism between darkness and light due to the dark skin of the animal and the sun-rays of the deity. This kind of play between bull as a dark force and a golden deity still exists nowadays in the corrida (Bru 1992).
Fig. 20: Repartition of the sun-heads in Tamgaly (Rogozhinsky 2009: 54, 56)
Horned-horse: In Tamgaly, at least eleven representations can be interpreted as horned-horses (Fig.7A-C). The petroglyphs show an animal with bull horns in ten cases and with deer antlers in one case. Neither a bull nor a deer, certain distinctive features signify a horse: the tail, the ears, the position of the penis and sometimes the position of the reins (Francfort et alii 1995: 185ff). The bull-horses are present once in Group I, six times in Group III, once in Group IV and twice in Group V, which also depicts the deer-horse.

Group III provides three cases where the horned-horses relate with human beings in cultic scenes. A rider, most probably a woman, is on the horse and a clothed (hu)man with an axe stands in front of them, sometimes with a solar symbol. The panel plays with antagonisms: human on animal, woman and man, horse as bull and man with animal skin, animal strength with its horns and human strength with the axe, solar symbol and darkness of the animal skin, sexual organs of man and animal. These horned-horses can also be considered as participatory to a bull cult since it was possible to ride and control a horse with a bull-mask, as opposed to a bull.

Such representations of horned-horses are an exception in Kazakhstan, except in Kulzhabasy, though there this animal does not appear in a cultic scene (Fig.7D). Other representations of them would be attested in Kyrgyzstan in Saimaluu-Tash and more frequently in Russian and Mongolian Altai (Francfort et alii 1995: 191ff). This tradition was still perpetuated during the Saka period in the Altai, as the discovery of horses with deer antlers in kurgans in Pazyryk proves (Francfort et alii 1995: 193ff).

Fertility: Some panels attest the importance of the concept of fertility in Tamgaly: two depictions of sexual intercourse in Group II (Fig.5), a calf inside the body of a cow in Group III (Fig.10) and a woman in childbirth under sun-heads in Group IV (Fig.11). There are at least three other representations of women in childbirth in the periphery of Tamgaly.

Panels with sexual intercourse are well known in other Central Asian sites like in Bayan Zhurek (Sala & Deom 2005: 133), 330 km north-east of Tamgaly, in Eshkiolmes (Baipakov
Adoranten 2011 & Maryashev 2004: 185), 250 km north-east of Tamgaly, or in Saimaluu-Tash (Dyaduchenko 2008: 10). There are, however, no similar pictures of a calf inside a cow. Engravings with women in childbirth are extremely rare and are attested in one case in Kulzhabasy.

**Anthropomorph:** As there are different kinds of representations of anthropomorphs in Tamgaly, we will focus our analysis on a few of them, and will not take into account the hunters and riders, but the ones in direct relation with cultic scenes.

In Groups I and II, human beings are most probably clothed with an animal skin with a tail (Fig.4A,B,D). They are commonly interpreted as shamans. They do not have any sexual features, their hands are prolonged with a crooked staff and they have spines on their clothes/skin. The crooked hands are comparable with a human in Group II (Fig.4H). The spines are similar to an engraving of Group III (Fig.4C), which is however not a human being but rather a double animal. There are six other similar representations in Tamgaly (Maryashev & Goryatshev 2002: 50) but are not known in any other sites of Central Asia. The crooked hands would be a pastoral-shaped staff, commonly used by the Central Asian shepherds (Rozwadowski 2004: 115), or a rod meant as a sceptre (Baipakov et alii 2006: 79).

Another type of human being is often called the “twins” because of their representation in a couple (Baipakov et alii 2006: 81) (Fig.4E,F and 8B). Two men, recognisable by their phalluses, are commonly in front of each other with raised hands. They are interpreted as worshippers and mainly present in Groups II and V, as well as on a stone used in a kurgan. There are other similar male couples in Tamgaly, and are also known in the main Central Asian sites, such as Saimaluu-Tash, Karakyr, Arpauzen, Eshkiolmes (Maryashev & Goryatshev 2002: 51), in Kulzhabasy (Baipakov & Maryashev 2004) and in Bayan Zhurek (Baipakov & Maryashev 2008: 104), as well as in the Mongolian Altai (Baipakov & Maryashev 2008: 195).

These worshippers sometimes wear an animal skin with a tail (Fig.4F) and can be isolated instead of being in a couple (Fig.4G).

Men carrying a cudgel and clothed with an animal skin with tail are depicted a half-dozen times in Tamgaly, either isolated in Groups II and V (Fig.4H,I) or in a cultic scene in Group III (Fig.7A and 8B). Analogous pictures were found in Saimaluu-Tash, in Eshkiolmes and in Karakyr (Maryashev & Goryatshev 2002: 30). Above a man with a cudgel (Fig.4H), there is also the representation of a pastoral staff.

Finally, we would like to mention the two groups of dancers in Groups III (Fig.8A) and IV (Fig.11). They are interpreted as dancers due to the position of their legs. They have raised hands and can be identified as men by their phalluses. This kind of scene is very rare but is attested in a site near Arpauzen (Kadyrbaev & Maryashev 2007: 33) and in the Sholak Mountains (Baipakov & Maryashev 2004: 234), 200 km east of Tamgaly.

**Structure of the rock art**

If we consider that the five groups of the main canyon form a whole due to the fact that they are well delineated -both as single group and within the canyon-, we can envisage that the canyon forms a kind of architecture in which the rock art is structured. Each group has its own stylistic, iconographic and structural particularities, with the engravings arranged on the rocks like on a stage.

The path through the rock art of the canyon begins with the hidden engravings from Group I on the top of a hill. From there, the spectator descends to Group II, which alternates between hidden representations of human beings and visible petroglyphs of animals. After it, we reach the first centre of the canyon by Group III with visible panels of cultic scenes. From there to Group IV, there is a wide area probably for ceremonies. The far end of this area is bordered by Group IV, the second centre of the canyon with the visible panel of seven sun-heads, as though thanks to the cultic scenes of Group III, the deities of Group IV could become incarnate.

The path ends by Group V which reveals a play between hidden and visible panels. Most of the human beings (worshippers) are hidden at the foot of the hill, whereas the sun-heads are visible on the slopes and on the top of the hill.

The shamans are engraved in Groups I and II, as if the way to reach the sun-heads...
of Groups IV and V could not begin without them. At the centre of the canyon in Groups III and IV, the worshippers and the shamans become visible in the cultic scenes and under the feet of the sun-heads. In Group V, the shamans disappear and the worshippers are hidden again.

By considering the centre, i.e. Groups III and IV, we could assert that the embodiment of the solar deities in Group IV was only possible thanks to the cultic scenes of Group III, where the bull, as personification of the darkness, was vanquished.

Looking at the solar orientation of the groups, we eventually see a parallel. Groups I and II are mostly facing the west. Group III is facing the southwest. Group IV is oriented to the south and south-east and Group V, mostly to the west and north-west. From Group I to IV, there is also a slight directional change from west to south, from sunset to zenith. With Group V at the end of the path, the engravings are again facing the sunset and the darkness. The difference between Groups I and II on the one hand and Group V on the other hand is that only human beings are facing the sunset at the beginning, while mostly sun-heads must face it at the end.

Thus, the structure of the rock art in the canyon of Tamgaly reveals distinct contrasts between the hidden and the visible and between light and darkness.

Conservation of the petroglyphs

Though cooperation between UNESCO and the Norwegian Directorate for Cultural Heritage from 2000 to 2003 allowed the implementation of protective measures for the site (Hygen 2001; Sala 2005: 101), the engravings are still generally in poor condition. The steppe's climate conditions include high temperature variation between day and night and between summer and winter, so that the rocks suffer from thermal stress and frost weathering. The region is additionally a seismic area and small earthquakes have already destroyed some slabs.

Furthermore, the size of the site does not allow for the supervision of all visitors, who sometimes climb on the rocks and/or write graffiti.

Archaeological context

In the area of Tamgaly, one Bronze Age settlement and six Bronze Age cemeteries, as well as six Early Iron and four medieval burial grounds have been numbered (Sala & Deom 2005: 99). Furthermore, many kurgans are located in the steppe near to the site.

Radiocarbon and EPR-dating from kurgans excavated by A. Rogozhinsky revealed four periods: the Middle Bronze Age between the 14th and the 13th century BC, the Late Bronze Age from the 12th to the 10th c. BC, the Early Iron Age from the 6th to the 4th c. BC and the Late Iron Age from the 2nd to the 1st c. BC (Rogozhinsky et alii 2004: 50ff). All Bronze Age burials belong to the Andronovo culture.

Some engravings were found on stones used for the construction of burial chambers in the barrows, such as a sun-head and a couple of worshippers from the Bronze Age, as well as goats from the Iron Age. Rogozhinsky considers whether these petroglyphs are contemporary with the burials (Rogozhinsky et alii 2004: 53), but Baipakov and Maryashev suggest that these pictures are older and were originally drawn in the canyon before the utilisation of the slabs as building materials (Baipakov et alii 2006: 69).

While previous excavations shed some light on the periodisation of Tamgaly, there remains much to do in order to understand the archaeological context. For example, research about the settlements and about the seasonal occupation of the site should be led, and the gap between the Late Iron Age and the Turkic Medieval period should be explored, in order to comprehend the dynamic of the pastoral populations in Central Asia.

Conclusion

Tamgaly is an important site for the understanding of rock art. Its occupation from the Bronze Age to the present allows us to see the evolution of the ideology of local populations and their perception of the environment and of the world.

The structure and the iconography of this sanctuary enlighten the conceptual world of the Bronze Age and prove the necessity of rock art analysis within a spatial and structural dynamic instead of in isolated pictures.
The diversity and the large number of sites in Central Asia in general, and in Kazakhstan in particular, permit the placement of Tamgaly in geographical context. The rock art in Central Asia shows mutual influences between various regions and these influences should be analysed in order to understand economic exchanges and population changes. Tamgaly can be analysed as a particular site, but should also be analysed in relation to other main sites on the micro-regional level, like Karakyr and Kulzhabasy, and on the macro-regional level, like Arpauzen, Saimaluu-Tash or Bayan Zhurek. Tamgaly can be thus understood as an intersectional site between the West (Arpauzen) and the East (Bayan Zhurek, Usek) and between the North with the Russian Altai and the South, with Saimaluu-Tash and further, Kashmir.

Luc Hermann
Institut für archäologische Denkmalforschung
Sportplatzstraße 5, A-3385 Markersdorf
Austria
l.hermann@archaeologie-service.at

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