

Kurgans of the Eastern Kugitang Piedmonts. Preliminary Report for Season 2018

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ABSTRACT

Kurgans are characteristic monuments of the Central Asian cultural landscape. The eastern piedmonts of the Kugitang mountain range (Southern Uzbekistan) emerged to be a noteworthy rich area in the occurrence of these various structures made of stones or soil and become one of the main research areas of the Czech-Uzbekistani Archaeological Expedition. Following the previous research of the season 2017, in 2018 the main attention was paid to the mapping of kurgans in the vicinity of the villages of Loylagan and Gurjak. Almost one hundred varied stone structures have been detected in this area, the majority of them labelled as a kurgan. This report presents the preliminary results of the field survey, a description of the morphology and a basic spatial analysis of the kurgans and their distribution within both the physical and historical landscape.

KEYWORDS

Kurgans; Central Asia; Bactria; landscape archaeology.

INTRODUCTION

The eastern Kugitang piedmonts (Surkhandarya Province, Southern Uzbekistan) have become the main research area of the Czech-Uzbekistani Archaeological Expedition since 2014. The research conducted predominantly in the form of extensive surface surveys and excavations of selected features has shown a noteworthy variety of preserved archaeological landscape not only in terms of the number of archaeological sites but also in their dating, stretching from the Late Bronze Age to the Middle Ages, specifically in the northern part of Pashkhurt in the Sherabad District (STANČO 2016; STANČO *et al.* 2016; AUGUSTINOVÁ 2017; AUGUSTINOVÁ *et al.* 2017; KYSELA – AUGUSTINOVÁ – KINASTON 2018). In the last five years, the Czech-Uzbekistani team paid attention to the settlement sites as well as to other anthropogenic features in the surrounding landscape, i.e. water channels, petroglyphs, and above all the cairns and stone settings interpreted frequently as *kurgans*, burial mounds commonly associated with the nomadic peoples of Central Asia and the Eurasian steppe zone in general. Interest in these features evolved into a subproject focused on the mapping of kurgans in the foothill region in order to evaluate their occurrence within the revealed cultural landscape, especially in relation to the Yaz I culture, i.e. local Early Iron Age (HAVLÍK – STANČO – HAVLÍKOVÁ 2017; HAVLÍK *et al.* 2018). The term *kurgan* is used throughout the report for a regular, circular- or oval-shaped mound of apparent anthropogenic origin made of stone or soil, regardless of its actual purpose. Only excavations have the potential to clarify the original purpose of these structures (sepulchral, ritual etc.).

In the autumn season of 2018, the Czech-Uzbekistani Archaeological Expedition focused in detail on the valleys adjacent to the Pashkhurt basin, i.e. the valleys of Gurjak and Loylagan in particular. These two valleys (**Fig. 1**), rising perpendicularly up to the ridge of Kugitang, were

up to this year visited only within the scope of preliminary general observations (STANČO *et al.* 2017). In the recent past, the studied area has been surveyed in order to detect and – in a few cases also to excavate – isolated archaeological sites such as the settlements of Lungi Tapa, Kulal Tapa, or Tura Tapa (ANNAEV 1987; BOBOKHODZHAEV – ANNAEV – RAKHMANOV 1989), or the burial ground of Loylagan (DUKE 1975). The state of research is, however, far from sufficient, and the archaeological situation in this region still waits for a proper evaluation (for a list of sites published up to 2003 and their dating see STRIDE 2004, 254–256; for recent discoveries see STANČO *et al.* 2017).

OBJECTIVES AND METHODOLOGY

The main aim of the project is a detailed exploration of kurgan clusters in the Kugitang piedmonts (Southern Uzbekistan), their mapping, and an evaluation of their occurrence within the surrounding natural and archaeological landscape. The combination of the collected data with the results of other concurrent research activities focused mainly on settlement remains is thus, essential. For this purpose, predominantly non-destructive archaeological methods were employed, i.e. in pre-selected areas detailed surface surveys of the kurgan clusters and their closest vicinity, morphological examination of individual features, and spatial analysis of the whole clusters were executed. Attention was paid to the dating and possible structural and spatial patterns of the studied kurgans, to their mutual relations, as well as to the relations

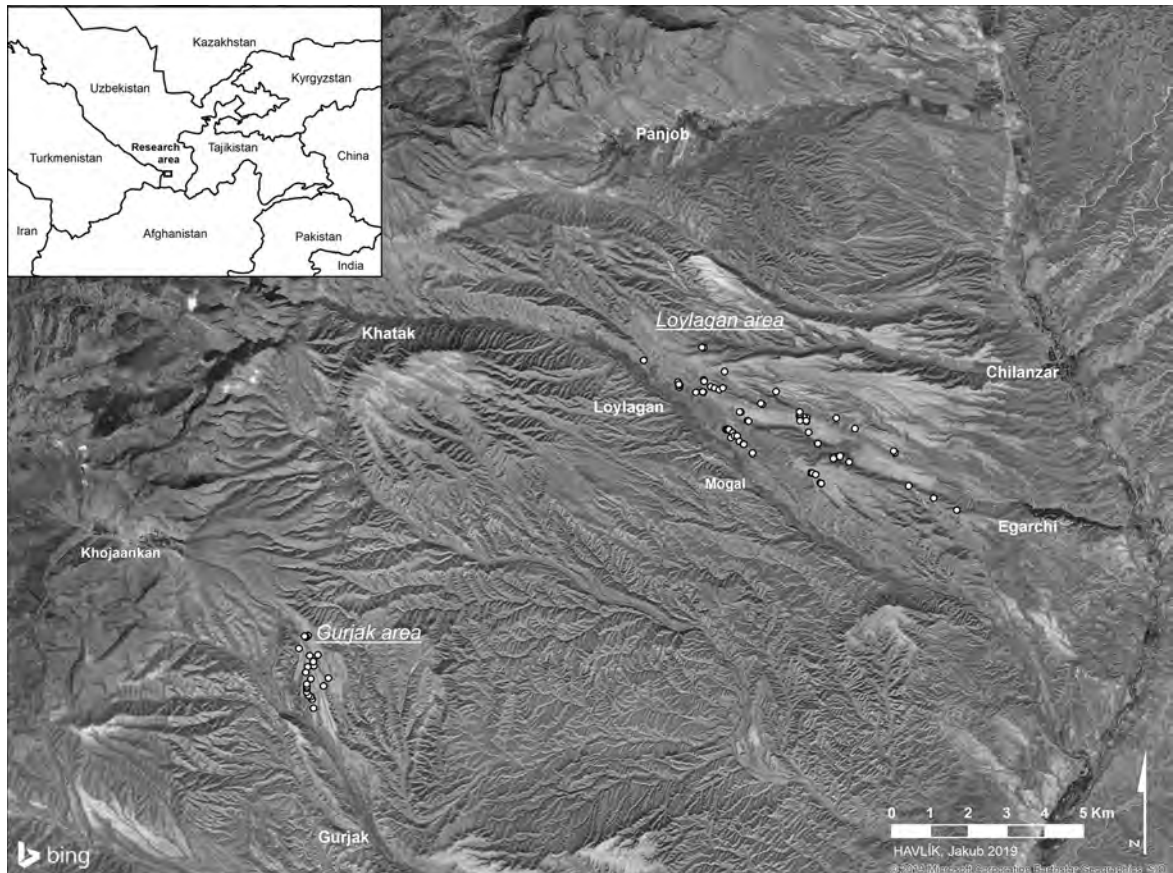


Fig. 1: Distribution of kurgans in the research area.

between the kurgans and various other features in the landscape, both natural (i.e. cardinal directions, terrain features, river beds, etc.) and anthropogenic (i.e. settlements, irrigation, petroglyphs etc.). the next indispensable step of the research was the excavation of the selected features within the identified clusters, which only has the potential to determine the dating of the kurgans.

In the same way as in season 2017 in the valley of Pashkhurt, in the season 2018 our team focused on the valleys of Gurjak and Loylagan: the mapping of both already known and newly detected kurgans and their detailed description, as well as the record of all other archaeologically noticeable phenomena. As a first step before the field work itself, a detailed examination of satellite imagery had been conducted in order to detect the possible location of the studied features. The occurrence of potential archaeological features was subsequently verified by the field survey and exploration of their vicinity. Structures meeting specific criteria (apparent anthropogenic origin, regular shape, stone or soil construction) were spatially recorded by a hand-held GPS-device, measured, and described in terms of size, construction, state of preservation, orientation, and position within the cluster and surrounding terrain. All the kurgans were photographed individually as well as within the context of the cluster and the surrounding landscape. Attention was particularly paid to the way of the kurgan clustering and the visual (inter)connectivity of both kurgans in the cluster and other (natural and anthropogenic) features. All the collected data have been processed in GIS for a better visualisation and subsequent analyses.

RESEARCH AREA

The research area is situated in the very north-eastern part of the Sherabad District and the bordering area with the Baysun District (Surkhandarya Province, Southern Uzbekistan) in the foothills of the Kugitang mountain range (highest peak at Airi Baba, 3139 m.a.s.l., while the altitude of the research area ranges from 850 to 1200 m.a.s.l.), more precisely in the two parallel mountain valleys oriented roughly perpendicular to it, in the vicinity of the present-day villages of Gurjak and Loylagan (**Fig. 1**). The local steppe environment is very hilly, disrupted by numerous river beds of seasonal streams, here and there interspersed by elevated flat plateaus, nowadays quite dry, however, clearly cultivated in the recent past, to which noticeable furrows bear witness.¹ These plateaus emerged as crucial places for this project. While the plateaus and hills around the river valleys are now suitable only for pasture, the oases on the floodplains and low river terraces are watered by springs allowing both small-scale arable and dry farming. The river valleys form natural main pathways in an east-west direction, which allow the crossing of the mountains at the Daraytangi gorge or pass of Khazretaksar. In the foothills, there are however, also some minor pathways in the north-south direction used by local herdsmen, which interconnect the main river valleys. The local climate is continental semi-arid, characterised by drastic temperature variation between both day and night and summer and winter.

1 According to locals, these plateaus had been cultivated about fifty years ago, when the precipitation was more favourable.

DISTRIBUTION OF KURGANS

In the valleys of Loylagan and Gurjak, in total 126 stone structures had been detected up to 2018 by the Czech-Uzbekistani Archaeological Expedition; 97 of them were labelled as kurgans (**Fig. 1**). The majority (104 structures in total) are situated in the area of Loylagan, where kurgan burials were already briefly studied in the past (see DUKE 1975; SVERCHKOV 2005, 12; SVERCHKOV 2007, 9–10), while the spatially much more (roughly four times) restricted cluster in the area of Gurjak (22 kurgans) was for the first time recorded only in 2016 (STANČO *et al.* 2017, 123). During the 2018 season, we surveyed all the area of the flat plateaus between the river of Loylagansay in the south-east and the dry river bed of Kuruksay to the north of the Loylagan Valley. In the east, the research area was delimited by numerous dry valleys west of the Chilanzar village while in the valley of Gurjak, the area of interest was defined by flat plateaus north of the present-day village, along the road to the hamlet of Khojaankan.

LOYLAGAN

Kurgans in the valley of Loylagan village have been detected in quite a wide zone stretching for more than 9 km along the left bank of the Loylagansay River (**Fig. 2**), strictly speaking on the river terraces of this stream and another parallel stream. It is in this parallel valley where the Late Kushan period settlement site of Kulal Tapa and settlement site labelled as Iskandar Tapa dated to the Hellenistic period are situated (BOBOKHODZHAEV – ANNAEV – RAKHMANOV

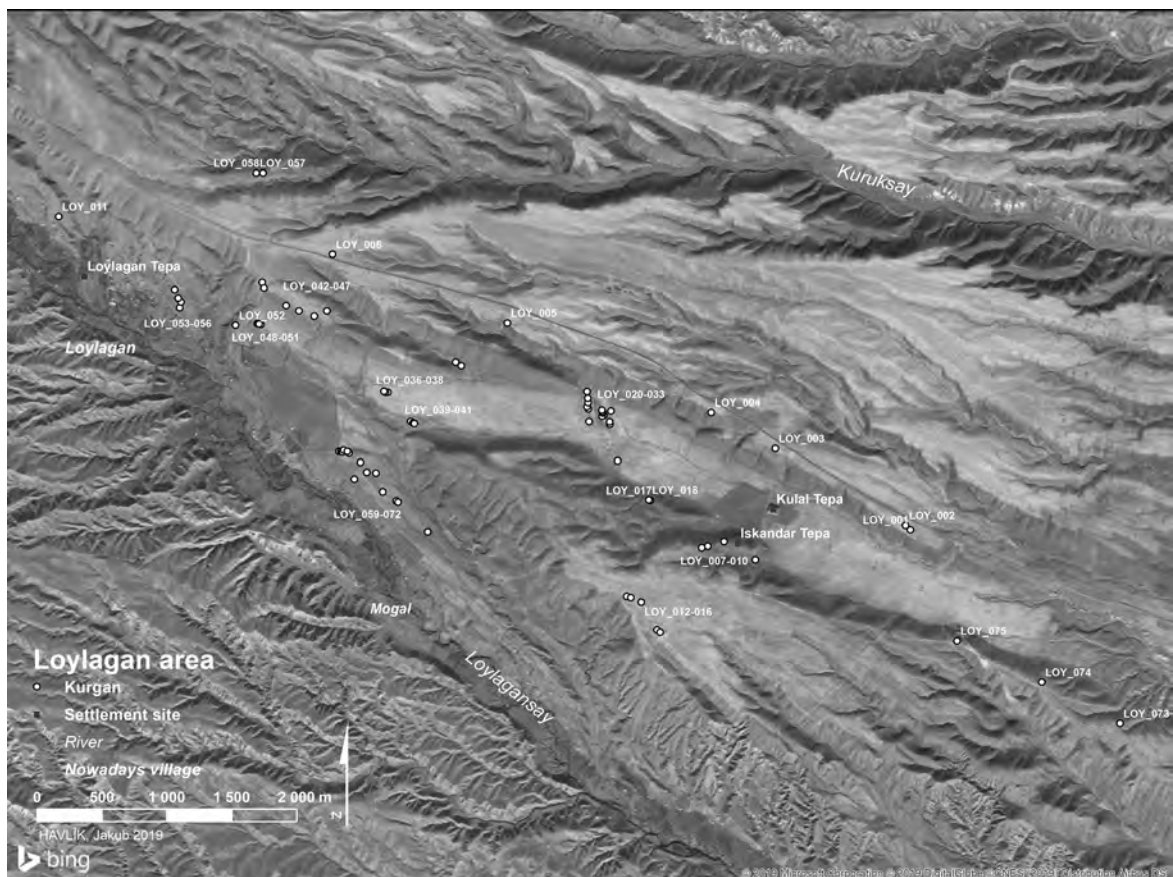


Fig. 2: Distribution of kurgans within the Loylagan area.

1989, 26–27; STANČO *et al.* 2017, 130–132). Altogether, 75 structures labelled as kurgans form several more or less clustered groups, while some of them stand isolated. Besides kurgans, there have also been detected 29 other kurgan-like features, and simple stone structures.

This archaeological site was first explored in 1973 by J. Duke, who briefly described both the supposed burial ground in general and excavation results of seven structures. According to his report (DUKE 1975), there were no burial pits beneath the structures, but ‘judging from the remnants of the ashes, it is possible to presume a cremation’.² In accordance with the dating of the poor uncovered archaeological material (one arrowhead and some pottery sherds), the whole site was dated by Duke to the 6th–7th century AD. This dating has been until now mostly accepted³ by other scholars (e.g. ARSHAVSKAYA – RTVELADZE – KHAKIMOV 1982, 117), while only Litvinskiy and Sedov considered a possible earlier dating and connection with Chionitic cremation burials in southern Tajikistan in the 4th–5th century AD (LITVINSKIY – SEDOV 1984, 134; for discussion summary see SVERCHKOV 2005, 12; KURBANOV 2013, 58). The intention of the Czech-Uzbekistani Archaeological Expedition was thus to contribute to the better understanding of this, so far insufficiently researched, area.

Kurgans

The kurgans detected in the area defined above seem to be a relatively homogenous group in terms of both their morphology and spatial distribution within the landscape. In terms of morphology, the most widespread type of kurgan in the valley of Loylagan is an almost perfectly circular-shaped kurgan made predominantly of well-laid medium-sized stones (d. usually 20–30 cm). The diameter of these kurgans ranges from ca. 6 to 9 m, while a diameter larger than 10 m is rather exceptional (see LOY_006, 013, 014, 065). The height of these kurgans varies significantly from 0.15 to 0.8 m. Among those 35 kurgans, which fit the described morphological type, there are also 14 smaller kurgans in the valley of Loylagan (d. ca. 2.3–5.1 m) of very similar construction. Exceptions such as cluster LOY_019–033 are described separately below.

In terms of the distribution of the studied features within the research area, there is an apparent clustering defined by belts of a varied number of kurgans situated usually on the edges of the river terraces, which sometimes take the form of flat elevated plateaus as is usual in this area. Following these belts, the majority of kurgans can be divided into 7–9 such clusters (see **Fig. 2**), which are mostly linked not only by their spatial proximity, but also by their identical morphology. The most numerous of these clusters, that of LOY_059–072 (**Fig. 3**), is situated on the lowest river terrace just above the hamlet of Mogal and the river bed of the Loylagansay, in visual contact with each other. This cluster consists of a line of seven well-preserved kurgans corresponding highly to the most widespread type described above, while the eighth, the largest kurgan, stands aside (**Fig. 4**). Moreover, there are two kurgans (LOY_059 and LOY_063) of the same morphology but smaller-sized and four kurgans (LOY_068–072) clumped on the western part of the belt, which differ not in size, but in their morphology.

These four kurgans (d. 4.5–8.5 m) were in all cases with one exception (LOY_072; **Fig. 5**) recently disrupted, highly probably by locals in order to collect large stones, the holes of these are still highly visible on the surface. According to the current state of preservation it was mostly possible to record only a low mound made of soil and little stones (d. up to 10 cm), while

2 ‘Было раскопано семь оград разной формы и размеров. В них не обнаружено могильных ям, но, судя по остаткам пепла, можно предполагать трупосожжение’ (DUKE 1975, 76).

3 Sverchkov apparently visited the site recently, collecting six pottery sherds there, which he did not describe in more detail (SVERCHKOV 2007, 14).

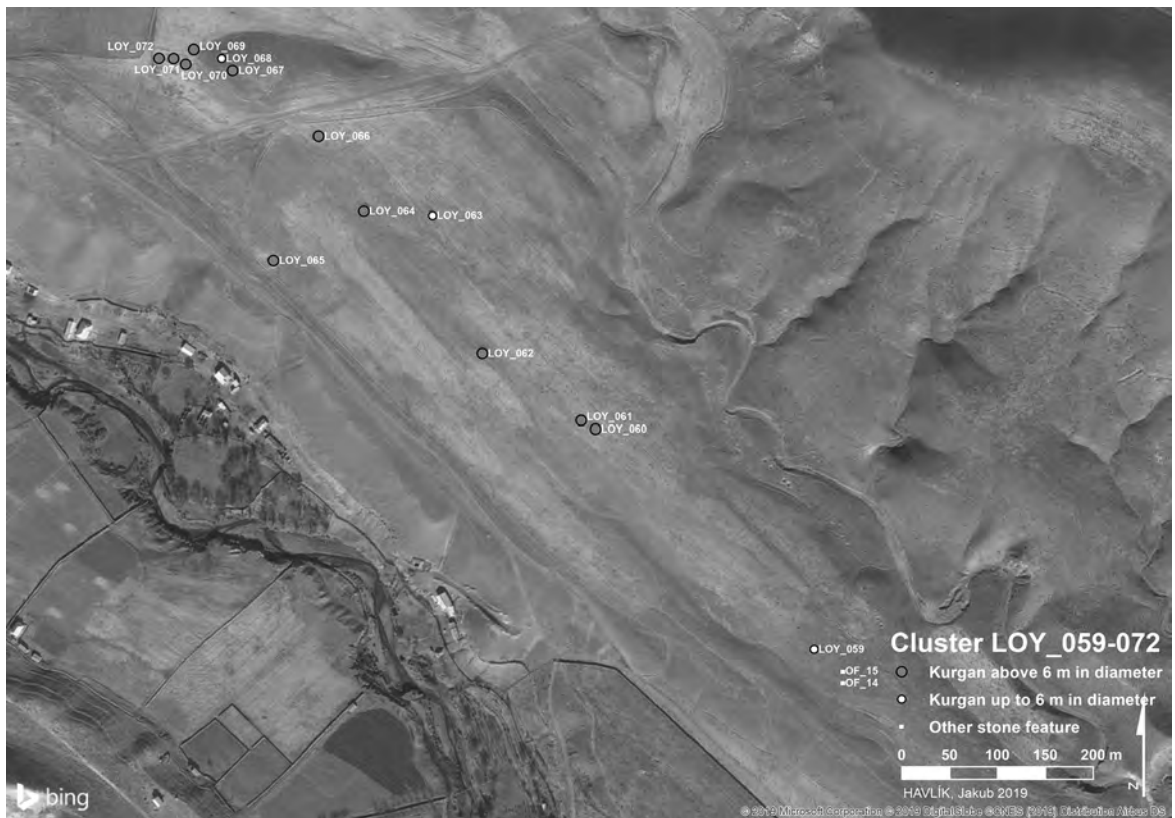


Fig. 3: Spatial distribution of kurgan cluster LOY_059-072.



Fig. 4: Kurgan LOY_065, view from the north (photo by H. Havlíková).



Fig. 5: Kurgan LOY_072, view from the south (photo by H. Havlíková).



Fig. 6: Spatial distribution of kurgan clusters LOY_036-041, LOY_042-047, LOY_048-052 and LOY_053-056.

traces of large stones are visible mainly on the circumference of the mound. It is therefore possible that these kurgans appeared originally more like soil mounds with a stone ring on the circumference (such as in the case of the well-preserved LOY_072; see **Fig. 5**), which could be described as 'circular stone enclosures' mentioned by Duke (DUKE 1975, 76). The main line of kurgans lies in the identical orientation with the river terrace, i.e. north-west – south-east. This phenomenon occurs usually on all the river terraces in the Loylagan Valley. Due to the very flat terrain of the terrace all the kurgans within the cluster have mutual visual contact.

West of the cluster LOY_059–072 on neighbouring river terraces and in the very same position in the landscape, it is possible to observe a similar situation in the cases of belt-clusters LOY_036–041 (6 kurgans), LOY_042–047 (6 kurgans), LOY_048–051 (4 kurgans), and LOY_053–056 (4 kurgans). In all these cases (**Fig. 6**) the kurgans are laid out not far from the edges of the terraces, in visual contact with the river valley, but not directly with the river bed. Cluster LOY_042–047 fits the spatial pattern described for cluster LOY_059–072 even in the distances between the individual kurgans within the belt (100–200 m), whereas the mutual distances between the features in the three other belts are much smaller: spacing usually ranges from 10 to 40 m, and these belts thus give the impression of much tighter groups.

Six kurgans of the cluster LOY_036–041 are, despite their mutual visual contact, divided into two belts of three kurgans. While the belt LOY_036–038 (**Fig. 7**) consists of three larger (d. 7–8.5 m) circular-shaped kurgans placed in the plain, the belt LOY_039–041 is placed in one line (ca. 30 m) on the edge of a rocky slope over the lower river terrace described above. These three kurgans of smaller dimensions (d. 2.3–5.1 m) are made of small stones (d. up to 20 cm), whereas around the kurgans LOY_039 and LOY_040 several larger stones (ca. 50×60 cm) are placed without a clear recognizable pattern. Like the belt LOY_039–041, the cluster LOY_048–051 (**Fig. 8**) is formed by a belt of four kurgans (only kurgan LOY_048 differs from the most widespread morphology) stretching only 30 m in an east-west direction. Our attention was drawn by several larger stones (d. up to 60 cm) placed on the edges of the kurgans, or – in the case of LOY_049 – in the central part of the mound. A possible function of the larger stone as a marker in clusters LOY_039–041 and LOY_048–051 cannot be ruled out. Cluster LOY_053–056 separated by a gully is similar in its disposition, whereas the badly-preserved low kurgans are made mostly of rather small stones (d. up to 10 cm). Further westwards – on another river terrace separated by the dry river bed of a minor brook – stands one isolated kurgan (LOY_011). Despite having the same morphology as defined above and a very similar topography, there are no other kurgans on this terrace.

Another eight kurgans are placed on the elevated plateau between the river bed of the Loylagansay and the flat valley around the Late Kushan period site of Kulal Tepa. Kurgans LOY_007–009 form a line on the northern edge of the spur west of the Hellenistic period site of Iskandar Tepa. The smaller, oval-shaped kurgan LOY_008 is badly disrupted. On the surface of this feature, two sherds of thick-walled pottery were found, dated by Sh. Shaydullaev to the 12th century AD. Within this belt, two badly recognizable stone circles were also detected (d. 6.3 and 6 m), which could fit its course and direction, and could thus be functionally connected with the kurgans.⁴ On the southern edge of the plateau, on the steep slope above the river bed, there is a cluster of well-preserved, rather large (d. 7.5–13 m) circular kurgans of the common morphology. Three of them (LOY_012–014) form a belt whose orientation is identical to that

4 Stone circles were archaeologically recognised as grave markers (for Kushan period in southern Tajikistan see MENDELSHTAM 1975, 64–109), but also as a probable place of ritual activity, typically burning of offerings (for Turkic period in Inner Asia see OKLADNIKOVA 1986, 81–88; for Mongolian Bronze Age see BRODERICK *et al.* 2016).



Fig. 7: Kurgan belt LOY_036-038, view from the east; LOY_038 at the foreground (photo by H. Havlíková).



Fig. 8: Kurgan belt LOY_048-51, view from the north. LOY_051 at the foreground (photo by H. Havlíková).

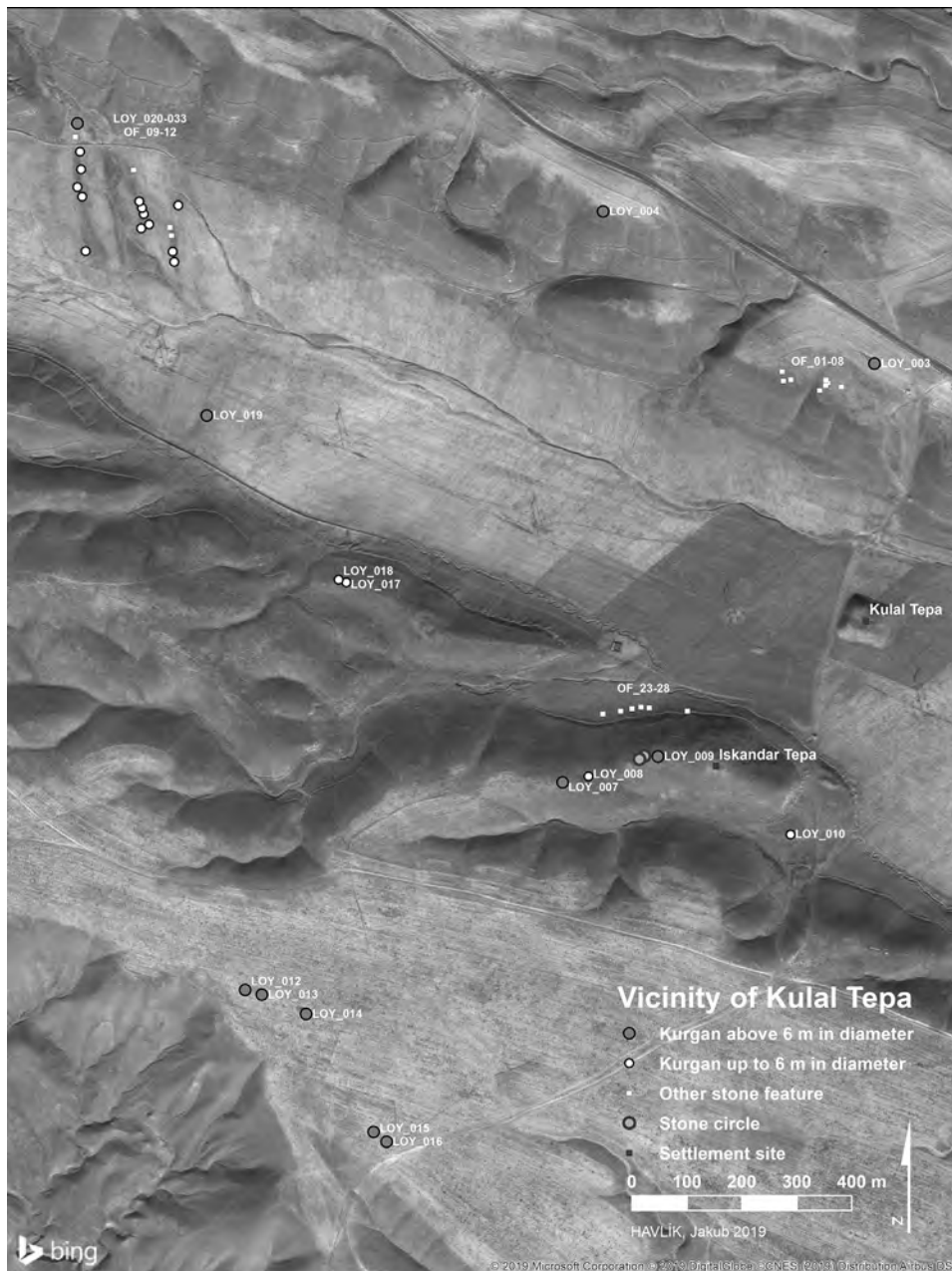


Fig. 9: Distribution of studied features in the vicinity of Kusal Tępa.

of the plateau (**Fig. 9** at the bottom of the image). The remaining two kurgans (LOY_015-016) are situated in the south-west. These five visually interconnected kurgans are located on the dominant position on the very top of the plateau. Kurgan LOY_013 (**Fig. 10**) was partly unearthed by a trial excavation in season 2018.⁵ No burial was found beneath the uncovered part of the construction, but only a shallow circular pit (d. ca. 80 cm, depth 6 cm) filled with black ash and slightly burned earth on the perimeter. Judging from the absence of any traces of pyre residues or any other objects, this feature appears to be a shallow fireplace. Soil sam-

5 Full report on the excavation is in preparation.



Fig. 10: Kurgan LOY_013, view from the east. Kurgan LOY_014 in the background (photo by T. Votroubeková).

ples of the fill have been taken for analysis whose results are still pending. Of interest is also the occurrence of two small, shallow (d. 20 and 40 cm, depth up to 10 cm) pits filled with the very same black ash (though without signs of firing), located next to the kurgan construction at a distance of ca. 1.5 m. In season 2018, only two small non-diagnostic sherds were found beneath the construction, dated preliminarily by Sh. Shaydullaev to the 4th century AD, which gives us a possible *terminus post quem* for the construction of the kurgan mound.

The described kurgan belts considerably resemble those of group Karabag – North in the northern part of the Pashkhurt basin (HAVLÍK – STANČO – HAVLÍKOVÁ 2017, 174–179). Similarities can be observed not only in terms of the morphology and the dimensions of the kurgans, but also in the spatial distribution within the belts located on the elevated river terraces. Kurgans of this sort were recorded also within cluster Kayrit 1, which however does not form any belt (HAVLÍK – STANČO – HAVLÍKOVÁ 2017, 163–165).

Kurgans of the same type have been detected also on the opposite narrow flat plateau, where there is also located a present-day roadway connecting the villages of Egarchi in the southeast and Khatak to the northwest (**Fig. 2**). Eight kurgans in total have been detected in this area (LOY_001–006; LOY_057–058), sparsely distributed not far from the edge of the plateau above the valley of Kulal Tepa. The topography of these features resembles the clusters described above (e.g. LOY_059–072), however the kurgans in question stand isolated, or in couples (LOY_001–002; LOY_057–058).

North and east of this plateau (cf. the area between the road and river bed of the Kuruksay in **Fig. 2**), on the other elevated plateaus and their spurs between numerous ravines, none of the kurgans preliminarily assumed here based on the study of satellite imagery has been confirmed in the field. Features, which appeared to be oval or circular stone structures in the satellite imagery turned out to be either of natural origin, or the remains of mechanized agriculture employed in the area during the last fifty years.



Fig. 11: Distribution of studied features within the cluster LOY_020-033.

The cluster LOY_020–033 (Fig. 11) was detected at the flat valley bottom below the settlement site of Kulal Tepa. It consists of fourteen kurgans, or rather cairns, which apparently differ from the type of kurgans described above and they could have originated from agricultural activities. These low features made of medium sized stones (d. 15–30 cm) are much more irregular in shape than most of the kurgans on the river terraces (their shape varies between a rectangular, oval, and circular shape), and their construction is less compact, containing a higher proportion of soil (see Fig. 12). Concerning their dimensions, these kurgans are rather small (d. 2.6–5 m) with one exception of kurgan LOY_028, which in its shape combines oval and rectangular, and in the north-south axis changing into an 8.5 m long platform made of small stones.



Fig. 12: Kurgan LOY_025, view from the south. LOY_026 and LOY_027 in the background (photo by H. Havlíková).

The kurgans of the cluster LOY_020–033 (**Fig. 11**) are densely distributed in three parallel lines in a north-south orientation, i.e. perpendicular to the general orientation of the valley. Besides the described kurgans, four other yet smaller and quite irregular-shaped features (OF_09–12) were detected within these lines. Therefore, the final number of stone features in each line is quite similar, five to the east, six in the middle, and seven to the west. These three lines of the kurgans run immediately alongside the three shallow grooves interpreted as water channels of uncertain origin (see **Fig. 11**). As a similar situation was not detected in any other part of the valley, it seems that these three lines of kurgans or kurgan-like features are not connected with the agricultural activities of the recent past. Nevertheless, a possible connection with the water channels, or with agriculture in general, cannot be ruled out. Mounding of stones was ethnographically documented among mobile pastoralists in order to improve the pasture qualities (CHANG – KOSTER 1986, 112–113). In case of lines of cairns in south-eastern Turkey resembling those of LOY_020–033, it has been also proved that their presence increases vegetation density and soil moisture of their close vicinity, and thus can be seen as an artificial pasture and soil improvement (HAMMER 2014). Judging from the photos (SVERCHKOV 2007, 10–13), similar kurgans are located not far from the village of Tuda in Baysun District.

Among several other rather small irregularly shaped kurgans (LOY_010; 017–019; 052; 073–075), occurring in the valley of Loylagan, a group of four, almost identical kurgans (LOY_017; 073–075) has been identified. All the kurgans are located above the valley, on the edge of the plateau south of Kulal Tepa. LOY_017 (**Fig. 13**) is situated ca. 900 m to the north-west of Kulal Tepa, while kurgans LOY_73–075 form a line (mutual distances are ca. 700 m) alongside the



Fig. 13: Kurgan LOY_017, view from the west (photo by H. Havlíková).



Fig. 14: Feature OF_02, view from the south (photo by T. Votroubeková).

dirt path between Kulal Tepa and the present-day village of Egarchi in the south-east. All these mounds⁶ are convex, almost perfectly circular in plan (d. ranges from 2.5 to 5.5 m, h. 0.5–1.3 m) made mostly of soil, with traces of a shallow ditch (w. up to 80 cm; not more than 15 cm deep) on the perimeter.

Other features

As has already been mentioned above, apart from the already described clusters of kurgans, we also identified a considerable number (29) of varied individual stone structures or very small kurgan-like features (small white squares on the maps; cf. **Fig. 9**). The structure OF_09–012 has been briefly described within the cluster LOY_020–033. There are, however, two clusters of these features, which are worth mentioning. The first cluster recorded already in 2010 is situated on the edge of the flat plateau above the Kulal Tepa valley, ca. 450 m north of this settlement, not far from the kurgan LOY_003. These eight poorly preserved features (OF_01–08) clustered in an area of 0.17 ha appear to be the remains of stone circles and semi-circles (d. 2.8–5.9 m) made of medium-sized stones (d. ca. 20 cm). The majority of stones have apparently been removed in the recent past⁷ still leaving visible imprints. In their original state they could have had the form of some sort of stone enclosures of small dimensions mentioned by Duke (DUKE 1975, 76). One of these structures was excavated in 2010, however no obvious layers or features were identified beneath the stone circle. Of particular interest is the unexcavated feature OF_02: an irregular stone circle with a diameter of 3.1–2.4 m and two adjoining lines of stones measuring 3.4 m (south-west direction) and 3.6 m (north-west direction) (**Fig. 14**). This feature resembles – in smaller dimensions – so called ‘kurgans with a moustache’ typical for half of the 1st millennium AD occurring in the steppes of Kazakhstan (ARSLANOVA 1975; GRUDUCHKO – EPIMAKHOV 2015; GRUDUCHKO 2018).

On the opposite side of the valley, a ca. 400 m long line of six very small stone mounds (OF_023–028; d. up to 2 m) made of small stones (d. up to 10 cm) was detected on the lower part of the slope on whose top is located the site of Iskandar Tepa. Without further excavations, it is too early to suggest their possible interpretation. These mounds, however – similar to those detected in the vicinity of Kayrit village – resemble the *obo* (*ovoo*) mounds associated with the Turkic peoples of Inner Asia. Their purpose can be both practical (a marker in the landscape) and ritual (veneration) (see OKLADNIKOVA 1986, tabs. I–II; ABAEVA 1992, 74–75). Moreover, the linkage to Turkic people would correspond with Duke’s dating of the kurgans to the 6th–7th century AD (DUKE 1975, 76).

6 According to Sh. Shaydullaev these features could be preliminarily dated to the Late Middle Ages, based on analogies.

7 These features lie along the local road, and therefore probably became a source of stones for building purposes.

Code	Longitude	Latitude	Width N-S (m)	Length E-W (m)	Height (m)	Max. stones diameted (m)	Note
LOY_001	66.9886017	37.9219017	9.3	7.2	0.55	0.15	
LOY_002	66.9881973	37.9221992	6	6.9	0.45	0.25	large stones fallen off the structure on S (45×45 cm)
LOY_003	66.9766006	37.9272995	6.7	6.8	0.3	0.25	
LOY_004	66.9710007	37.9296989	8.4	8.5	0.3	0.25	
LOY_005	66.9529037	37.9356995	3.7	4.3	0.1	0.2	large hole ca 40 cm deep dug into the kurgan
LOY_006	66.9374008	37.9402008	13.8	12.9	0.7	0.25	
LOY_007	66.9703979	37.9203987	8.6	9	0.6	0.2	
LOY_008	66.9709015	37.9205017	3.9	5.3	0.3	0.2	disrupted on west
LOY_009	66.9722977	37.9207993	8.8	8.8	0.3	0.2	
LOY_010	66.9750977	37.9196014	3.8	3.1	0.3	0.2	
LOY_011	66.9132996	37.9424019	7.9	8.8	0.2	0.1	few larger stones 60×30 cm and 60×40 cm
LOY_012	66.9638977	37.9169006	7.5	7.4	0.4	0.25	signs of surface disruption
LOY_013	66.9642029	37.9168015	12.5	13	0.7	0.25	signs of surface disruption
LOY_014	66.9652023	37.9165001	11	13	0.7	0.25	signs of surface disruption; partly earthen-made
LOY_015	66.9665985	37.9146004	7.7	9	0.4	0.25	
LOY_016	66.9669037	37.9143982	9.8	9.9	0.4	0.3	
LOY_017	66.9657974	37.9235992	5.5	5	0.75	0.2	ditch on circumference: w. 70-80 cm, 5-15 cm deep; earthen mound
LOY_018	66.9656982	37.9235992	4.5	3.9	0.2	0.2	irregular structure; depression in central part
LOY_019	66.9627991	37.9263	10.4	7.2	0.8	0.3	mostly earthen-made; only a small amount of stones
LOY_020	66.9620972	37.9287987	4.5	4	0.2	0.15	
LOY_021	66.9620972	37.9289017	4	3.9	0.35	0.15	slightly rectangular shape
LOY_022	66.9621964	37.9296989	4	3.7	0.3	0.25	irregular shape
LOY_023	66.9614029	37.9292984	2.6	2.8	0.25	0.2	irregular shape: oval - rectangular
LOY_024	66.9616013	37.9294014	5	4.5	0.4	0.2	irregular shape: oval - rectangular
LOY_025	66.9615021	37.9295006	3.8	4.3	0.5	0.3	irregular shape: oval - rectangular; boulders d. 25-30 cm

Code	Longitude	Latitude	Width N-S (m)	Length E-W (m)	Height (m)	Max. stones diameted (m)	Note
LOY_026	66.9614029	37.9295998	4	4	0.3	0.25	irregular shape: oval - rectangular; one larger stone on S-E
LOY_027	66.9614029	37.9296989	3.1	3.2	0.3	0.2	irregular shape: oval - rectangular
LOY_028	66.9602966	37.9289017	6.7	5.2	0.25	0.2	irregular shape: oval - rectangular
LOY_029	66.9601974	37.9297981	3.4	2.2	0.2	0.25	irregular shape
LOY_030	66.9600983	37.9300003	3.2	3.9	0.2	0.2	
LOY_031	66.9600983	37.9301987	2.8	2.4	0.6	0.3	
LOY_032	66.9600983	37.9305	4.9	3.9	0.3	0.25	
LOY_033	66.9599991	37.9309998	3	2.9	0.15	0.2	highly disrupted
LOY_034	66.9488983	37.9325981	3.2	2.9	0.3	0.2	
LOY_035	66.9485016	37.9328995	3	3.3	0.3	0.2	large stones (d. more than 50 cm) around the circumference
LOY_036	66.9425964	37.9306984	7	7.5	0.55	0.3	
LOY_037	66.9422989	37.9305992	8.5	8.5	0.3	0.3	a depression in the central part
LOY_038	66.9421997	37.9306984	8.1	8.3	0.6	0.3	some larger stones (d. 50×50 cm) S of the structure
LOY_039	66.9449005	37.9285011	2.3	2.4	0.15	0.15	barely noticeable due the rocky terrain; large stones (d. 60-50 cm) around the structure
LOY_040	66.9448013	37.9286003	3.8	3.6	0.25	0.2	barely noticeable due the rocky terrain; large stones (d. 60-50 cm) around the structure
LOY_041	66.944603	37.9286995	4.7	5.1	0.3	0.2	barely noticeable due the rocky terrain
LOY_042	66.9369965	37.9361992	6.5	5.9	0.2	0.5	highly disrupted; made of large stones
LOY_043	66.935997	37.9357986	9	8.6	0.6	0.25	on the circumference larger stones (d. up to 50 cm)
LOY_044	66.9346008	37.9361992	8.9	10.7	0.6	0.3	several stones d. up to 40 cm
LOY_045	66.9335022	37.9365005	5.9	5.8	0.3	0.2	one larger stone (d. 50 cm) on the S edge
LOY_046	66.9315033	37.9376984	3.7	3.5	0.1	0.2	three larger stone (50×40 cm)
LOY_047	66.9312973	37.9380989	8	9.5	0.35	0.2	larger stones probably taken from the structure
LOY_048	66.9312973	37.9351997	4	4	0.1	0.2	high level of disruption

Code	Longitude	Latitude	Width N-S (m)	Length E-W (m)	Height (m)	Max. stones diameted (m)	Note
LOY_049	66.9310989	37.9351997	6	5.8	0.3	0.25	one large stone in the central part (50×40 cm)
LOY_050	66.9310989	37.9351997	7	7	0.3	0.25	some of stones larger (d. up to 50 cm); on W edge one larger stone (60×40 cm)
LOY_051	66.9309998	37.9351997	7.8	7.6	0.25	0.2	
LOY_052	66.9291	37.9351006	3.9	4	0.3	0.3	
LOY_053	66.9241028	37.9361992	8	9	0.2	0.3	highly disrupted
LOY_054	66.924202	37.9365997	5	4.6	0.25	0.1	circular/oval; a small satellite kurgan attached to E side (d. 1.4 m)
LOY_055	66.9240036	37.9369011	6.6	6.9	0.2	0.1	few larger stones (d. up to 30 cm)
LOY_056	66.9235992	37.9375	4.1	3.7	0.2	0.3	highly disrupted
LOY_057	66.930603	37.9457016	6.4	8.5	0.25	0.2	highly disrupted
LOY_058	66.9311981	37.9457016	5.1	4.9	0.15	0.25	highly disrupted
LOY_059	66.9462967	37.9210014	4.3	3.1	0.25	0.25	one larger stone in the central part (40×30 cm); one larger stone near the NW edge (50×30 cm); oval-shaped
LOY_060	66.9437027	37.9230995	7.6	7.4	0.2	0.25	one larger stone (40×30 cm) on W; highly disrupted
LOY_061	66.9434967	37.9230995	7.2	6.5	0.4	0.25	highly disrupted
LOY_062	66.9422989	37.9238014	8.5	8.1	0.5	0.15	highly disrupted
LOY_063	66.9417038	37.9249992	5.1	4.9	0.2	0.25	highly disrupted
LOY_064	66.9408035	37.9250984	7.5	10.4	0.5	0.2	
LOY_065	66.9397964	37.9245987	10.7	10.3	0.8	0.15	
LOY_066	66.9403	37.9258003	6.9	6.5	0.5	0.3	kurgan-like feature (3.3×3.7 m, h. 0.25 m; rectangular-shaped) in 0.5 m distance
LOY_067	66.9393005	37.9263992	7.1	7.1	0.25	0.3	highly disrupted
LOY_068	66.9391022	37.9264984	4.4	4.9	0.5	0.2	only traces of external stone ring remain visible; highly disrupted
LOY_069	66.938797	37.9266014	5.6	5.6	0.1	0.2	only traces of external stone ring remain visible; highly disrupted
LOY_070	66.9386978	37.9263992	6.7	5.8	0.1	0.15	only traces of external stone ring remain visible; highly disrupted
LOY_071	66.9385986	37.9264984	6	6	0.1	0.2	only traces of external stone ring remain visible; highly disrupted
LOY_072	66.9384003	37.9264984	7.8	7.4	0.15	0.25	two concentric stone rings made of larger boulders (d. up to 35 cm); disrupted

Code	Longitude	Latitude	Width N-S (m)	Length E-W (m)	Height (m)	Max. stones diameted (m)	Note
LOY_073	67.0074005	37.9087982	5	5	1.3	o	ditch on circumference (w. 40 cm; 20 cm deep)
LOY_074	67.0005035	37.911499	3.5	3.5	0.5	o	ditch on circumference (w. 30 cm; 10 cm deep)
LOY_075	66.9929962	37.914299	2.5	2.5	0.65	o	ditch on circumference (w. 30 cm; 10 cm deep)

Tab. 1: Kurgans of the Loylagan area.



Fig. 15: Distribution of kurgans within the Gurjak cluster.

GURJAK

A situation significantly different from the valley of Loylagan can be observed on the plains north of the village of Gurjak. A kurgan cluster near Gurjak⁸ is located on the elevated plateau between the villages of Gurjak (to the south) and Khojaankan (to the north), which gradually rises up into the mountains, and offers a natural connection between those settled areas. The occurrence of the kurgans in this area was first recorded by L. Stančo in 2016 (STANČO *et al.* 2017, 123), the exact date of these – as yet unexcavated – features remains, however, still unknown. The only archaeological activity in this region prior to 2016 is that connected with the excavation of the settlement of Lungi Tapa, west of Khojaankan village, dated to the Middle Ages (8th–12th century; ANNAEV 1987, 586–587; BOBOKHODZHAEV – ANNAEV – RAKHMANOV 1989, 32). Not far from this settlement (i.e. west of Khojaankan) a so far unknown polycultural site was recently detected in the rock shelter of Kaptar Kamar. The chronology of the site ranges from the Neolithic and Yaz I period to the Middle Ages (see STANČO *et al.* 2017, 127–128). No historical settlement activity has been detected on the plateau itself or in its closest vicinity: only three non-diagnostical pottery sherds were collected near the kurgans, two of them dated by Sh. Shaydullaev preliminarily to the 12th century AD, one to the 18th–19th century AD.

The Gurjak cluster (**Fig. 15; Tab. 2**) consists of 22 kurgans, which are sparsely spread out over the plain divided by several gullies, especially on its eastern side, not far from the edge above the ravine. The general orientation of the cluster is identical to the north-south orientation of the plateau: some of the kurgans form an alignment (GUR_002–008), whereas kurgans GUR_019–021 are closely clustered to the north of the plain without a clear pattern or orientation. Despite the fact that all the detected features are concentrated within a single cluster in an area of ca. 75 ha, they differ significantly from each other in morphology. Kurgans



Fig. 16: Kurgan GUR_012, view from the south-west (photo by H. Havlíková).

8 Labelled as ‘Gurjak-West’ in STANČO *et al.* 2017.



Fig. 17: Kurgan GUR_016, view from the south-west (photo by H. Havlíková).



Fig. 18: Kurgan GUR_013, view from the east (photo by J. Havlík).

made mostly of stones occur only in two cases (GUR_005; GUR_012; **Fig. 16**), while the rest of the Gurjak kurgans are made mostly of soil, or a stone-and-soil combination. Besides the predominantly circular-shaped kurgans, there are also quite frequent oval-shaped ones. The orientation of these mounds (north – south) corresponds with the orientation of the plateau but also with the direction of the ploughed furrows, and thus it might have been caused by later human activity while the plateau was cultivated.

Code	Longitude	Latitude	Width N-S (m)	Length E-W (m)	Height (m)	Max. stones diameted (m)	Note
GUR_001	66.81761493	37.85874699	7	6	0.4	0.1	some stones d. up to 20 cm
GUR_002	66.81712098	37.86081397	14.9	14.4	1.1	0.1	few stones d. up to 20 cm; N-S (28.3 m) oriented lenticular 'embankment'
GUR_003	66.81674195	37.86147195	11.1	11.9	0.5		N-S (23.6 m) oriented lenticular 'embankment'
GUR_004	66.81610099	37.86172299	1.5	1.5	0.5	0.1	disrupted: originally oval - shaped kurgan of d. up to 8 m?
GUR_005	66.81551493	37.86249898	11.6	12.4	0.8	0.1	some larger stones d. up to 25 cm, one larger stone 50×45 cm
GUR_006	66.81548693	37.86340096	10	9.7	0.5		only limited number of stones on the circumference
GUR_007	66.81549498	37.86379097	18.8	18.5	1		earthen mound
GUR_008	66.81542432	37.86433705	4.3	3.1	0.2	0.15	disrupted by ploughing (?): uncertain boundary
GUR_009	66.82043469	37.86400831	7.3	4	0.3	0.1	almost without stones; disrupted
GUR_010	66.8218053	37.86588728	5.1	5.4	0.2	0.15	some larger stones on the circumference; one large stone by S (70×50 cm) and W-S (70×40 cm) part
GUR_011	66.8166086	37.86565376	3.9	4.2	0.2	0.3	
GUR_012	66.81504018	37.86716058	10.2	9.9	0.8	0.15	larger stones (d. up to 35 cm) in the central part
GUR_013	66.81557947	37.8684648	23.2	22.4	1.3	0.5	one large stone (d. 50 cm) on the top; mostly earthen-made; N-S (25.1 m) oriented lenticular 'embankment'
GUR_014	66.81735626	37.86872054	8.5	6.6	0.4	0.1	N-S (28.7×9.1 m) oriented lenticular 'embankment'
GUR_015	66.81724562	37.86970315	6.9	4.7	0.35	0.25	traces of stone robbing; N-S (13.7 m) oriented lenticular 'embankment'
GUR_016	66.81612949	37.87102656	8.1	6.7	0.4	0.15	N-S (14.7 m) oriented lenticular 'embankment'
GUR_017	66.81852948	37.87125271	3	3	0.2	0.15	one large stone in central part 80×60 cm; badly preserved
GUR_018	66.81284001	37.87272013	2.8	2.6	0.2	0.2	highly disrupted
GUR_019	66.81551761	37.87577609	3.4	2.5	0.2	0.1	some stones d. up to 25 cm; few larger stones (50×40 cm) by N and S edges

Code	Longitude	Latitude	Width N-S (m)	Length E-W (m)	Height (m)	Max. stones diameted (m)	Note
GUR_020	66.81497086	37.87542782	7.4	6.4	0.4	0.2	N-S oriented lenticular 'embankment'
GUR_021	66.81464841	37.8756165	5.4	4.9	0.4	0.15	some stones d. up to 20 cm
GUR_022	66.81444557	37.87564231	5.4	3.3	0.3	0.2	high level of disruption

Tab. 2: Kurgans of the Gurjak cluster.

A specific repeatedly documented kind of feature (GUR_002–003; GUR_013–016; GUR_020) consists of the central structure of the kurgan enclosed in a lenticular-shaped very low embankment of the same orientation as mentioned in the case of the oval-shaped kurgans (see **Fig. 17**). It is not clear if this embankment originally enclosed the entire circumference of the kurgan and was secondarily deformed by ploughing, or if it was wholly created by ploughing during the later agricultural activities within the area.

It is possible to distinguish considerable differences in the kurgan dimensions: the smallest kurgans in the cluster (GUR_004) measure 1.5 m in diameter,⁹ seven of the kurgans exceed a diameter of 10 m, and the kurgan GUR_013 (**Fig. 18**) measuring 23 m represents the largest one recorded in the Kugitang piedmonts. It is made predominantly of soil. The western side of its circumference is underlined by a line of medium sized stones (d. up to 40 cm). Similar to these soil-made kurgans, four predominantly earthen-made kurgans forming a belt are located in the kurgan cluster Karabag – North 1, in the northernmost part of the Pashkhurt basin (HAVLÍK – STANČO – HAVLÍKOVÁ 2017, 174–179). Besides the general linearity of the Gurjak cluster layout, given by the nature of the comparatively narrow plateau, no evident patterns have been recognised either in terms of the distribution of the kurgans or of their morphology and dimensions. The question of their date still remains open for future trial excavation.

CONCLUSIONS

One of the aims of the Czech-Uzbekistani Archaeological Expedition in the autumn of 2018 was to map the kurgan-like features in the vicinity of the villages of Loylagan and Gurjak. This area revealed great research potential, regarding not only the kurgan mounds, but also settlement sites of a different nature. As far as kurgans are concerned, significant differences in terms of their morphology have been ascertained between these two areas. While the Loylagan valley is clearly characterised by kurgan belts consisting predominantly of regular, circular-shaped kurgans made of stone, on the plains north of Gurjak, kurgans made of soil, or a combination of soil and stones prevail. In Gurjak occur oval-shaped kurgans, which are lacking in Loylagan. On the other hand, a phenomenon common to both areas is the obvious preference for the location of kurgans on river terraces and flat plateaus. An important characteristic in both areas is furthermore the linear distribution of the kurgans on the plateaus or river terraces, and a certain link between the kurgans and natural pathways in the area. This presumption was supported by the absence of these features on the spacious plateaus westwards of the road between Egarchi and Khatak villages which would otherwise lend

⁹ This dimension corresponds to the preserved state of the badly disrupted kurgan GUR-004, which in its original state could have reached a diameter of up to 8 m.

itself perfectly to their construction.¹⁰ Kurgans clearly occur on flat plains above the river bed on which a modern roadway and dirt roads run these days – possibly copying the historical ones. The features in question are almost everywhere (with the exception of the cluster LOY_020–033, which differs furthermore in terms of morphology) built on dominant positions, usually visually interconnected with the surrounding landscape of the (river) valley. These characteristics can be found also in the neighbouring Pashkhurt basin, which was examined in previous research seasons. Kurgan belts north of Karabag correspond significantly to the kurgan belts of Loylagan in terms of their morphology, spatial distribution, and the site topography in general. Numerous clusters of densely distributed small features typical for the area between the villages of Kayrit and Kampyrtepa (see HAVLÍK – STANČO – HAVLÍKOVÁ 2017) represent only a minority of kurgans in Loylagan, and in Gurjak they do not occur at all.

In general, both areas bear witness of the similar space management, which could indicate their chronological or functional interconnection. Because of the lack of chronologically sensitive material, it is still hard to identify a link connecting these clusters. Some evidence coming from the excavation of kurgan LOY_013 could however tentatively confirm Duke's dating of Loylagan kurgan cluster to the Early Middle Ages. However, the simple fireplace uncovered by the excavation which significantly recalls the ash layers described by Duke, does not suggest a direct sepulchral use of the kurgan. This phenomenon of kurgans without burials (possible cenotaphs?), which has been already documented in the Kugitang piedmonts (HAVLÍK *et al.* 2018), poses one of challenges for future research in this region.

Following the aims of the research, a whole range of tasks have arisen. There are still several areas with the potential to reveal new data, especially north of Loylagan, between the villages of Khatak and Panjob. Another kurgan cluster can be assumed there, which can be compared with the kurgan burial grounds at Saryband and Toda in the Baysun District. (SVERCHKOV 2007, 10). However, the greatest potential for a better understanding of the collected data could be provided by further excavation in Loylagan, and trial excavations of the kurgan clusters near Gurjak and Karabag. Only excavations can determine the dating and possible relations between these three areas and provide more detailed information and concrete data on the cultural development of the eastern Kugitang piedmonts.

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10 On the topic of the link between pathways and mounds in general see LØVSCHAL 2013.

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