

# EARLY BRONZE AGE TUMULUS NEAR THE VILLAGE OF KAMENTSI, SILISTRA REGION, NE BULGARIA

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**Abstract:** *Results of rescue excavations conducted by the author in 2011 are published. Six Early Bronze Age burials were revealed. Archaeobotanical and anthropological studies were carried out. Flint grave goods are presented as well. C14 dates support tumulus' chronology.*

**Keywords:** *Early Bronze Age, Pit-grave culture, tumulus, Bulgaria.*

Original scholarly article  
UDC: 902.6(497.2)  
903.5"637.3"(497.2)  
Received: 01.10.2019.  
Accepted: 15.11.2019.

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## RANOBRONZANODOPSKI TUMUL IZ OKOLINE SELA KAMENCI, OBLAST SILISTRA, SI BUGARSKA

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**Apstrakt:** *Publikovani su rezultati zaštitnih iskopavanja kojima je rukovodio autor rada 2011. godine. Otkriveno je šest ranobronzanodopskih grobova. Izvršene su arheobotaničke i antropološke analize. Prezentovani su i grobni nalazi of kre-  
mena. Radiokarbonski datumi potvrđuju hronologiju tumula.*

**Ključne reči:** *rano bronzano doba, kultura grobnih jama, tumul, Bugarska.*

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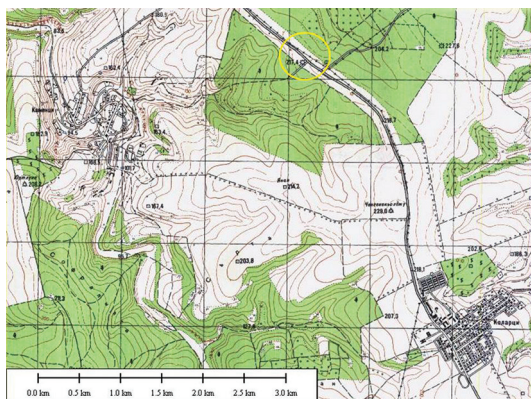
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## 1. PREFACE

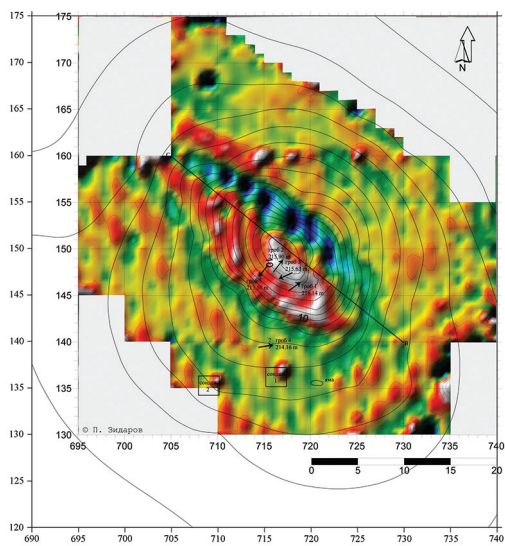
During July–August 2011 rescue archaeological excavations of this tumulus were carried out (Вагалински и Александрова 2012). It lied on the bed of the Dobrich–Silistra gas pipeline (site #8, km 36.430). The tumulus was situated close to the west of the road Silistra–Dobrich and near the turn to villages of Kamentsi and of Kolartsi (Fig. 1).

A triangulation point with altitude of 217,40m stood on the top of the tumulus.

The archaeological team included: Lyudmil Vagalinski (head), Sirma Alexandrova (deputy), Lyuba Traikova (all belong to the National Archaeological Institute with Museum – Bulgarian academy of sciences), Nicolay Sharankov (Sofia University) and Emil Petkov † (Tutrakan history museum). Victoria Ruseva (Institute of experimental morphology, pathology and anthropology with museum – Bulgarian academy



**Figure 1.** Location of the tumulus (Lyudmil Vagalinski).



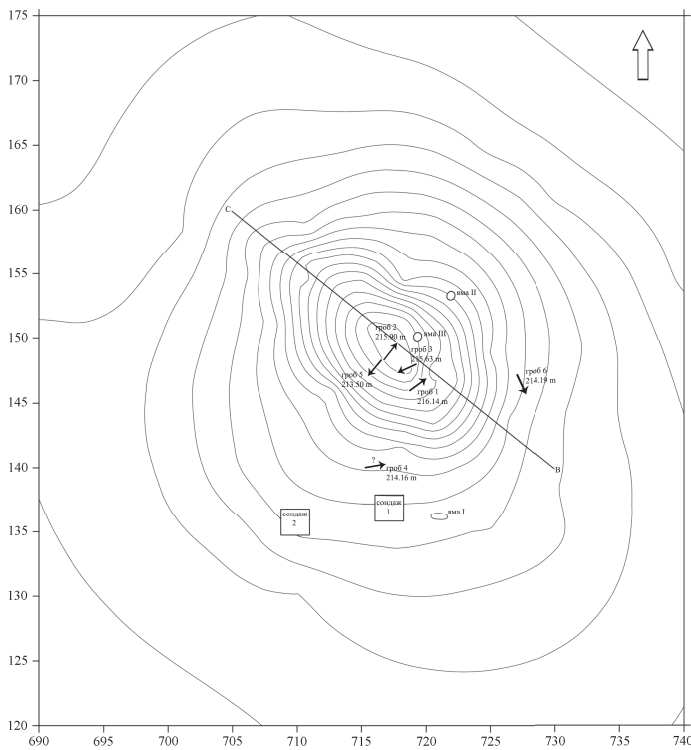
**Figure 1a.** Geophysical results of the tumulus (Petar Zidarov).

of sciences) studied human remains, Tsvetana Popova (NAIM–BAS) – archaeobotanical samples and Maria Gurova (NAIM–BAS) – flint artifacts.

A preliminary geophysical survey by Petar Zidarov (New Bulgarian University/Tubingen University) did not reveal clear anomalies in the tumulus and around it (Fig. 1a).

We excavated the mound using workers and a wheel loader (fadroma).

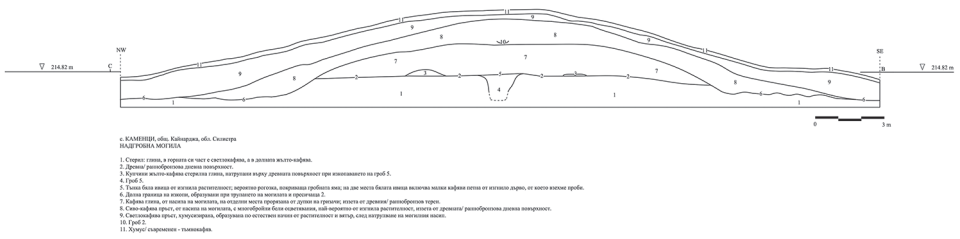
## 2. DESCRIPTION OF THE TUMULUS



**Figure 2.** Geodesic plan of the tumulus (Petar Zidarov, Lyudmil Vagalinski):  
 ↑ location of a burial pointing the head; 213,50m altitude of grave pit's bottom;  
 □ trench; ○ pit; B-C cross-section of the tumulus.

The burial mound had a boat-like shape by axis NW–SE because of intense machine ploughing (Fig. 2).

Its current dimensions were height of 2,40m and diameter of 21m (Fig. 3).



**Figure 3.** Cross-section of the tumulus (Lyudmil Vagalinski), see Fig. 2: 1- sterile clay; 2- Early Bronze Age living surface; 3- sterile clay dug out because of grave 5; 4- grave 5; 5- plant sheet; 6- lower limit of trenches for tumulus' embankment; 7- brown clay taken from the Early Bronze Age terrain; 8- grey-brown soil with rotten vegetation taken from the Early Bronze Age living surface; 9- light brown soil with humus accumulated by vegetation and wind over the tumulus' embankment; 10- grave 2; 11- contemporary dark brown humus.

Originally, the tumulus was about 3,10m high and 17m in diameter. Its embankment of about 370m<sup>3</sup> could be done by 50 men for 4–5 days by daily norm of 2m<sup>3</sup>. It was quite an executable task if we take into account the rich experience, good physical strength and tame horses of Pit-grave culture's people. The burial mound was banked on a natural low elevation. The ancient surrounding terrain elevated like now from the north to the south. The embankment was surprisingly loose and unstable. The reason was perhaps large amount of rotten plant mass in it and numerous animal holes. Also, stripe buried vegetation at the level of the former living surface showed that the mound had been accumulated in season with rich vegetation.

### 3. BURIAL RITE

#### 3.1. WAY OF BURIAL

Six graves were revealed. Each contained one inhumation (Fig. 2). Four of the skeletons were lying on the left or right side in hocker position (graves 1, 2, 5, 6; Figs. 4, 5, 6–6a, Fig. 7 respectively).

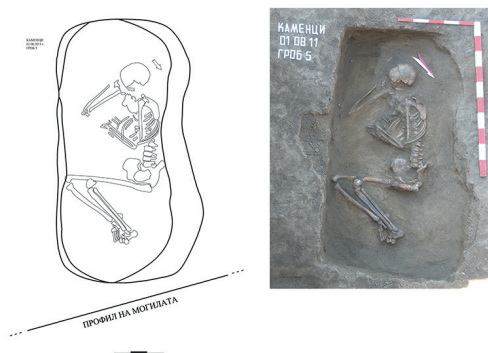
The deceased from grave 3 (Fig. 8) was laid on his back with his body arms stretched and bent and erect knees, leaning one another (probably tied).



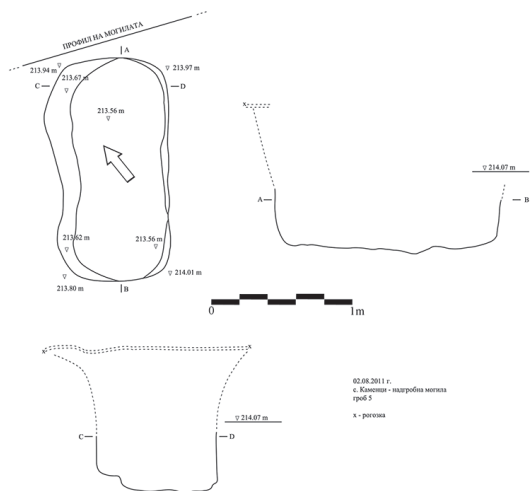
**Figure 4.** Grave 1 (photo Lyudmil Vagalinski; drawing Sirma Alexandrova).



**Figure 5.** Grave 2 (photo Lyudmil Vagalinski; drawing Sirma Alexandrova):  $\diamond$  flint.



**Figure 6.** Grave 5 (photo Lyudmil Vagalinski; drawing Sirma Alexandrova).



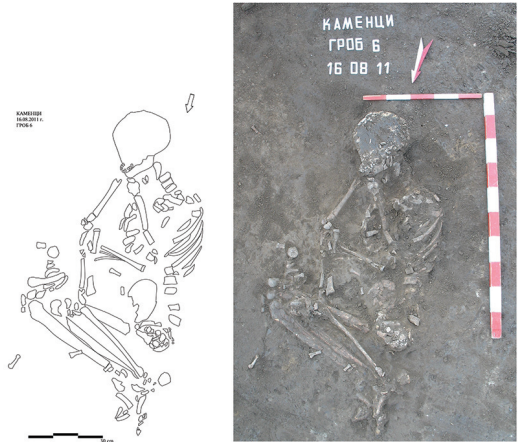
**Figure 6a.** Pit of grave 5 (Lyudmil Vagalinski); X plant sheet.

The skeleton in grave 4 (Fig. 9) was dispersed by rodents.

Animals had even put a chunk of a contemporary string and nylon in grave 5. Grave 1 (Fig. 4) contained the remains of a 40–50-year-old woman; grave 2 (Fig. 5) – a 30–40-year-old person with an unidentified sex but more probably woman; grave 3 (Fig. 8) – a 20–25-year-old man; grave 4 (Fig. 9) – a 11–14-year-old child; grave 5 (Figs. 6, 6a) – a 16–25-year-old woman; grave 6 (fig. 7) – a 25–35-year-old man. We found human bones from destroyed funerals scattered by rodents and plowing in some places in the embankment. They belong to three men aged about 16, 25 and 65 years. It is interesting that the right femur of the 25-year-old man was cut shortly after his death. The healthy teeth of individuals under 30 years of age, the large proportions of the bones of the postcranial skeleton and the high values of reconstructed growth (on average 162,75cm for women and 174cm for men) talk about good health status of the population that buried their dead in the burial mound near the village of Kamentsi. Under and on the skeletons, we found a deep red ochre.

### 3.2 GRAVE STRUCTURE

Grave structure we found only in graves 4 (Fig. 9) and 5 (Figs. 6, 6a) – rectangular burial pits with rounded corners and narrowed down walls – because they were partially dug into a sterile loess. That of the grave 4 was covered with oak planks, 5cm wide and 1cm thick, placed lengthwise and transverse to the long axis of the pit. The pit's filling contained pieces of charcoal of oak wood burnt outside the pit. The pit of grave 5 was covered with plant sheet/fabric (a mat?) at the level of the then living surface. Despite our efforts, we were unable to outline the burial pits of the other funerals, rather because they were filled with the same soil from the embankment (i.e. the graves were dug into the mound) than because of the assumption that the bodies were laid on the tumulus and covered with embankment's soil.



**Figure 7.** Grave 6 (photo Lyudmil Vagalinski; drawing Sirma Alexandrova).



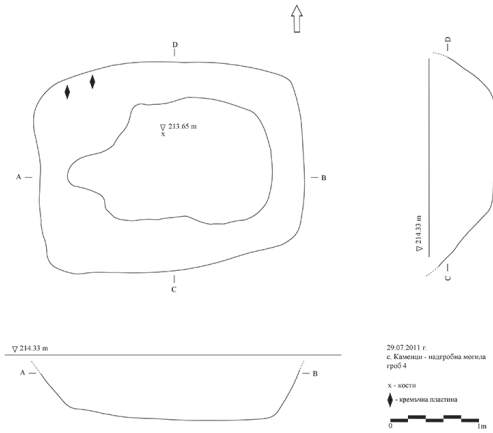
**Figure 8.** Grave 3 (photo Lyudmil Vagalinski; drawing Sirma Alexandrova).

### 3.3 GRAVE GOODS

Burial gifts contained only two graves – flint artifacts: five in grave 2 (Figs. 5, 10) and two in grave 4 (Figs. 9, 11).

Their quality raw material is local, typical for Ludogorie region in NE Bulgaria. Artifacts from grave 4 are a flint fragment and a flint tool with no traces of use (Fig. 11). One of the flints in grave 2 served for scraping fur, and another for cutting plants (Fig. 10).

3.4. OTHER RITUAL PRACTICES



**Figure 9.** Grave 4 (Lyudmil Vagalinski): X human bones;  $\blacklozenge$  flint.



**Figure 10.** Flints of grave 2 (Maria Gurova).

In three places in the mound’s embankment, we registered three small shallow burnt ritual pits with oval plan (Figs. 2, 12, 13). They were full with burnt clay, charcoal and ash.

4. CHRONOLOGY OF THE GRAVES

According to the burial rite, these graves can be dated to the beginning of the Early Bronze Age. Samples for C14 dating were taken from the skeleton in the central primary grave (# 5; *ossa longa*), which specified the absolute chronology – between 3105 and 2912 cal BC (Fig. 14)<sup>1</sup>.

The rest of the graves should be dated a bit later. There is no clear evidence to date some (for example, graves 1 and 2) to the Middle Bronze Age. Moreover, the altitude of their pits’ bottom is close to the one of definitely Early Bronze Age grave 3 (Fig. 2).

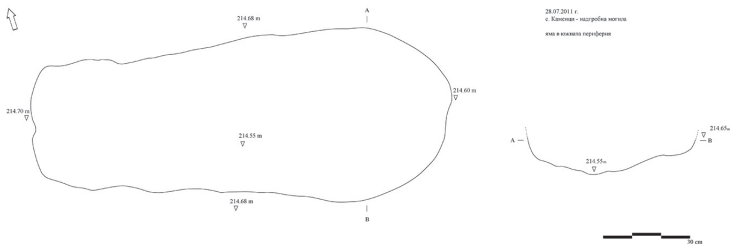
No younger artifacts or structures were found in the

1 Samples with a SUERC coding (Laboratory Code SUERC-63823, GU39116) were measured at the Scottish Universities Environmental Research Centre AMS Facility. The calibrated age ranges were determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal14). I thank Assoc. Prof. Dr. Hristo Popov (NAIM-BAS) for providing this study.





**Figure 11.** Flints of grave 4 (Maria Gurova).



**Figure 12.** Ritual pit I in the south end of the tumulus (Lyudmil Vagalinski), see Fig. 2.

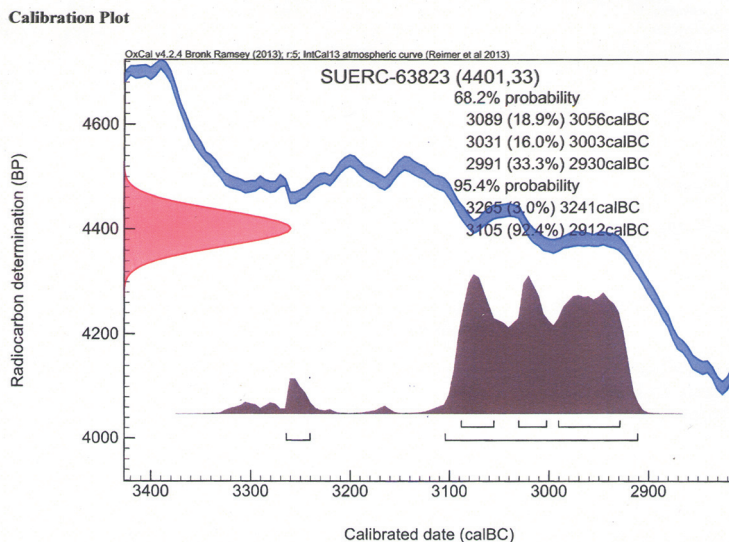
tumulus except two wooden stakes of a contemporary watchtower for protecting vintage. Two small fragments of Roman amphorae were discovered close to the burial mound. No Roman settlement has been located nearby.

## 5. CULTURAL AFFILIATION OF THE GRAVES

All graves belong to the Pit-grave culture according to the burial right (Alexandrov 2011, 314–318).



**Figure 13.** Ritual pit III in the middle of the tumulus (Lyudmil Vagalinski), see Fig. 2.



**Figure 14.** Calibration plot; radiocarbon dating certificate of 18 November 2015, SUERC-63823 (GU39116).

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## Summary

Results of rescue excavations conducted by the author in 2011 are published. Six burials were revealed. Each contained one inhumation (Fig. 2). Four of the skeletons were lying on the left or right side in hocker position (graves 1, 2, 5, 6; Figs. 4, 5, 6–6a, Fig. 7 respectively). The deceased from grave 3 (Fig. 8) was laid on his back with his body arms stretched and bent and erect knees, leaning one another (probably tied). The skeleton in grave 4 (Fig. 9) was dispersed by rodents. Grave 1 (Fig. 4) contained the remains of a 40–50-year-old woman; grave 2 (Fig. 5) – a 30–40-year-old person with an unidentified sex but more probably woman; grave 3 (Fig. 8) – a 20–25-year-old man; grave 4 (Fig. 9) – a 11–14-year-old child; grave 5 (Figs. 6, 6a) – a 16–25-year-old woman; grave 6 (Fig. 7) – a 25–35-year-old man. The population that buried their dead in the burial mound near the village of Kamentsi had good health status. A dark red ochre was put under and on the deceased. Grave structure was recognized only in graves 4 (Fig. 9) and 5 (Figs. 6, 6a) – rectangular burial pits with rounded corners and narrowed down walls. That of the grave 4 was covered with oak planks. The pit of grave 5 was covered with plant sheet/fabric (a mat?) at the level of the then living surface. Burial gifts contained only two graves – flint artifacts: five in grave 2 (Figs. 5, 10) and two in grave 4 (Figs. 9, 11). According to the burial rite, these graves can be dated to the beginning of the Early Bronze Age. Samples for C14 dating were taken from the skeleton in the central primary grave (#5; *ossa longa*), which specified the absolute chronology – between 3105 and 2912 cal BC (Fig. 14). The rest of the graves should be dated a bit later. All graves belong to the Pit-grave culture.

