

# A new burial of the Late Phase of Kura-Araxes cultural tradition/early kurgan tradition from Azerbaijan

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**Abstract.** The paper brings information about a new burial of the Kura-Araxes cultural tradition from Azerbaijan. The grave was excavated during the construction of SCPX (The South Caucasian Pipeline Expansion project) in February 2018. The grave was located 500 m to the west of Khatynly village, in Tovuz district of Azerbaijan. The tomb was discovered during the works carried out by heavy machinery. The grave chamber of a rectangular shape contained a human skeleton lying on the back with a slight deviation to the right side and with slightly bent knees. The funeral inventory consisted of five ceramic vessels belonging to the late phase of the Kura-Araxes cultural tradition (Martkopi/Bedeni complex). The grave belongs to the Early Bronze Age and dates back to 2500-2300 BC. Most likely, this grave was the main burial of the barrow, the upper part of which has been disturbed and destroyed by agricultural activity in the recent ages.

**Keywords:** Azerbaijan, Early Bronze Age, Kura-Araxes cultural tradition, Martkopi/Bedeni complex, kurgan.

**O nouă descoperire funerară atribuită fazei târzii a tradiției culturale Kura-Araxes/tradiția tumulilor timpurii din Azerbaidjan.** Lucrarea aduce informații despre o înmormântare recent descoperită atribuită tradiției culturale Kura-Araxes din Azerbaidjan. Mormântul a fost săpat în timpul construcției SCPX (The South Caucasian Pipeline Expansion project) în februarie 2018, fiind poziționat la 500 m vest de satul Khatynly, din districtul Tovuz, Azerbaidjan. Mormântul a fost descoperit în timpul lucrărilor realizate cu mașini de mare tonaj. Camera funerară, de formă dreptunghiulară, conținea un schelet uman întins pe spate, cu o ușoară abatere spre partea dreaptă și cu genunchii ușor îndoiți. Inventarul funerar consta în cinci vase ceramice aparținând fazei târzii a tradiției culturale Kura-Araxes (complexul Martkopi/Bedeni). În mormântarea aparține epocii timpurii a bronzului și este datat în perioada 2500-2300 î. Hr. Cel mai probabil, acest mormânt este principal pentru respectivul tumul, care avea partea sa superioară deranjată și distrusă de activitățile agricole din ultimele epoci.

**Cuvinte cheie:** Azerbaidjan, epoca bronzului timpuriu, tradiția culturală Kura-Araxes, complexul Martkopi/Bedeni, tumul.

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In February of 2018, during the construction of The South Caucasian Pipeline Expansion (SCPX project) at KP 358, in the pipeline trench, several pit burials were found. After this accidental discovery, the expedition of the Institute of Archaeology and Ethnography of Azerbaijan National Academy of Sciences, led by the author of the following article, started the archaeological excavations of these burials. The topic of this article is grave No. 1, which was opened in the northern part of the trench. The grave was found at about 500 m west from Khatynly village, in Tovuz district of Azerbaijan Republic (**Pl. 1**).

### **Burial description**

At the depth of 2.2 m a burial chamber of rectangular shape (size: length – 2.9 m, width – 1.4 m) has been excavated. The human skeleton was lying on the back with a slight deviation to the right side and with slightly bent knees facing north (**Pl. 2**; **Pl. 7**). The lower part of the skeleton was crushed during the operation of heavy machinery. Five ceramic vessels were found near a human head in the southeast part of the chamber (**Pl. 8**).

### **Characteristics of the ceramic vessels:**

Small size, black burnished vessel of biconical form, with one arched handle, oval in section (**Pl. 3/1**). On the body there is a slightly traced geometrical pattern. Reddish interior. Flat bottom. Thin walls. Handmade. Clay structure with some sand inclusions. Well burnt. Dimensions: height – 11 cm, width – 13 cm, bottom diameter – 5 cm, rim diameter – 9.7 cm.

Large size, black burnished ceramic vessel of biconical form, with two arched handles, oval in section (**Pl. 3/2**). On the body there is a traced geometrical pattern. Reddish interior. Flat bottom. Thick walls. Handmade. Clay structure with a lot of sand inclusions. Poorly burnt. Dimensions: height – 32 cm, width – 39 cm, bottom diameter – 14.5 cm, rim diameter – 19.5 cm.

Middle size, dark grey burnished ceramic vessel of biconical form, with one normal size arched handle, oval in section, on one side, and a small arched handle, oval in section, on the other side (**Pl. 3/3**). On the body there is a slightly traced geometrical pattern. Reddish interior. Flat bottom. Thin walls. Handmade. Clay structure with a few sand inclusions and well burnt. Dimensions: height – 21 cm, width – 25 cm, bottom diameter – 6.5 cm, rim diameter – 19.5 cm.

Small size, black burnished vessel of biconical form, with one arched handle, oval in section (**Pl. 3/4**). Reddish interior. Flat bottom. Thin walls. Handmade. Clay structure with a few sand inclusions and well burnt. Dimensions: height – 16 cm, width – 18 cm, bottom diameter – 5 cm, rim diameter – 13 cm.

Large size, dark grey, slightly burnished, deep bowl of hemispherical form (Pl. 3/5). There is a horizontal ear-shaped molding on the side. Flat bottom. Thick walls. Handmade. Clay structure with a lot of sand inclusions and poorly burnt. Dimensions: height – 32 cm, width – 39 cm, bottom diameter – 14.5 cm, rim diameter – 19.5 cm.

### Human remains

The anthropological analysis is based on Martin & Saller's (Martin, Saller 1957) and Alekseev & Debec's (Alekseev, Debec 1964) methods of craniometric programme and age estimation. The human remains from the grave were in poor condition. We could take *in situ* only some craniometrical measurements of the skull. The skull belonged to an adult male (approximately 17-25 years old), ovoid form, probably mesocranic; narrow-faced and middle height (70 mm); low (30 mm), narrow (30 mm), hypsiconchy orbits; narrow nose (24 mm), not high (50 mm), mesorrhine. Anthropological type – gracile Mediterranean, probably Caspian anthropological type. The Caspian anthropological type is wide in Azerbaijan since Mesolithic to the Modern times (Kirichenko 2020, p. 169).

### Discussion and conclusions

The vessels from the Khatynly grave have analogies in the ceramics of the late phase of Kura Araxes cultural tradition, especially in the Martkopi/Bedeni complex (Pl. 4). The large, black burnished vessel from Khatynly (No. 2) is similar to the vessels from Martkopi barrow No. 2 (Pl. 9), Tqemlara barrow No. 2, Dalismta barrow No. 5, Kvemo Kartli barrow No. 5. The vessel No. 1 from Khatynly is similar to vessels of Early Trialeti ceramics (Pl. 10), Martkopi barrow No. 2 and No. 4, Kvemo Kartli barrow No. 5.

The monuments of the Kura-Araxes cultural tradition are widespread in almost all regions of Azerbaijan<sup>2</sup>. There were settlements and burials. The burials of the Kura-Araxes culture of Azerbaijan represent simple pit burials with single inhumations and collective burials under barrows with *dromos* type entrance to the tomb. The position of the body in simple pit burials is mostly contracted crouched on left/right side. The position of skeletons in collective burials under barrows is hard to detect, they are more chaotic because these tombs have been used for a long time and with every new burial pushing back the previous one, after the filling of the burial chamber it was set on fire and the tomb structure (which consisted of wooden pillars and roof) collapsed (Dzhalilov, Kirichenko 2017, p. 63).

The radiocarbon dating of the bone samples from the Khatynly burial was made with financial support from the BP Company in the Beta laboratory in Miami

<sup>2</sup> The issue of generations and expansion of the Kura-Araxes cultural tradition in the territory of the Caucasus and Near East is not a topic of our paper and will not be included here.

(USA). The Khatynly burial dates from 2473-2299 cal BC, in 2 sigma domain (Pl. 5-6) and consequently belongs to the Early Bronze Age III.

Azerbaijani archaeologist Q. S. Ismailzade divided the Kura-Araxes archaeological culture of Azerbaijan in three phases (Ismailzade 2008, p. 172): phase I – 3500-3000 BC; phase II – 3000-2700 BC; phase III – 2700-2200 BC. The western archaeologists considered that the Kura-Araxes culture has two main periods: I – 3600/3500-2900 BC and II – 2900-2500 BC (Palumbi, Chataigner 2014, p. 249; Palumbi 2015, p. 14); the interval 2500-2300/2200 BC corresponds to Early Kurgan Tradition (Palumbi 2015, p. 30).

The burial mounds of the Early Kurgan Tradition are made of stones and/or earth and generally have a low chamber, either below or above the ground level; they generally contain one or two skeletons, but «cenotaphs» and examples containing only a few bone fragments are also attested. Burial inventories consist of a small number of vessels associated with a few metal items (weapons, pins) and lithic objects; in two cases, traces of wheel-furrows were detected on the chamber's floor (Rova 2014, p. 64).

The Bedeni barrow complex shows that the large timber structures constructed in a deep rectangular or square grave pit were characteristic. Other tomb types include deep earthen shafts or shallow pits, and the occasional catacomb variety, hewn out of bedrock (Sagona 2017, p. 313). Georgian archaeologist Dr. A. Orjonikidze notes that the kurgans comprising Bedeni group are mostly arranged in earthen pits, and in some cases the pits are fitted with special burial chambers (Orjonikidze 2015, p. 65). The Khatynly tomb looks like a construction of burial chambers from Bedeni group barrows.

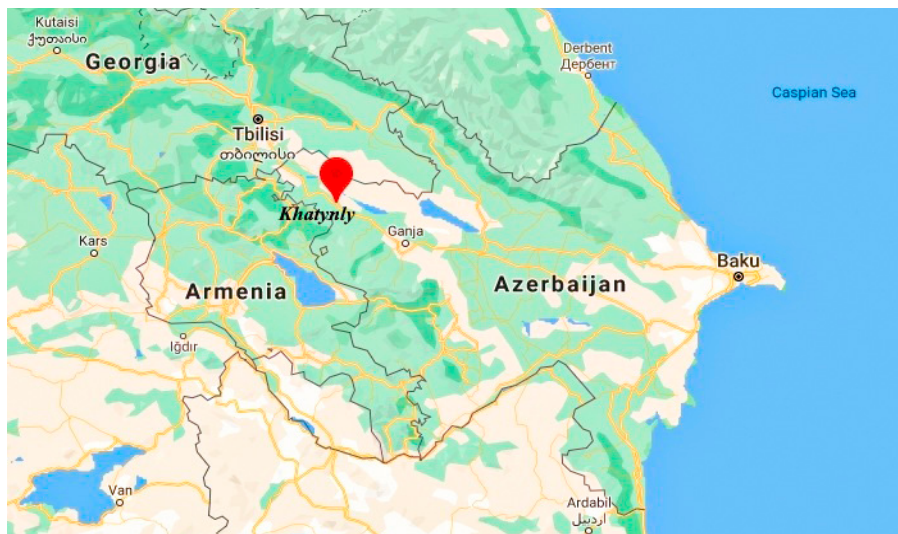
We think that the Khatynly grave was the main burial of the kurgan, the burial rite and grave goods having good parallels with burials and artefacts of the Matrkopi/Bedeni complex in Eastern Georgia. The upper part of the mound covering was destroyed in the process of agricultural activity from recent times. The nearest area around the Khatynly burial was used for vineyards and crops. The Khatynly grave at this moment is the only burial feature of the last phase of the Kura-Araxes cultural tradition which belonged to the Early Kurgans Tradition of The Early Bronze Age III from Azerbaijan.

### Acknowledgements

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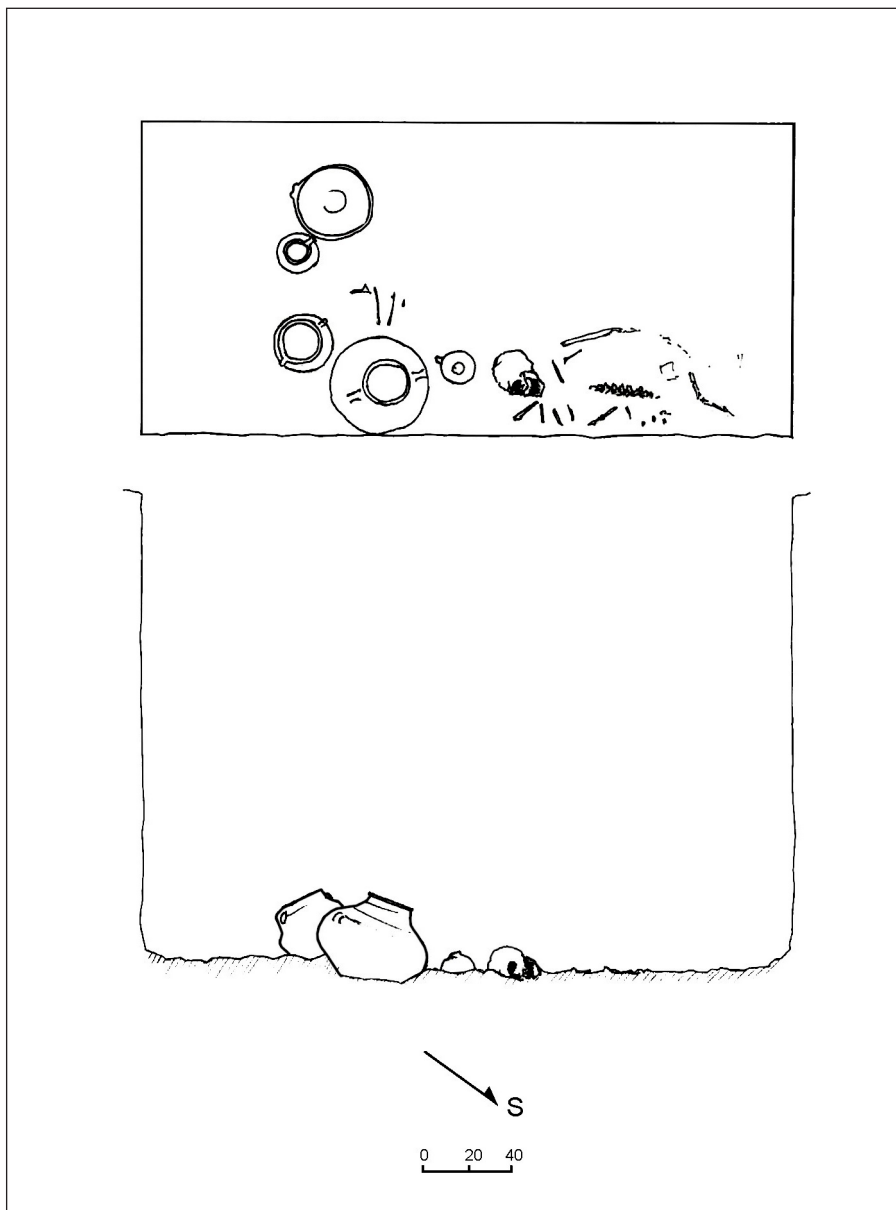
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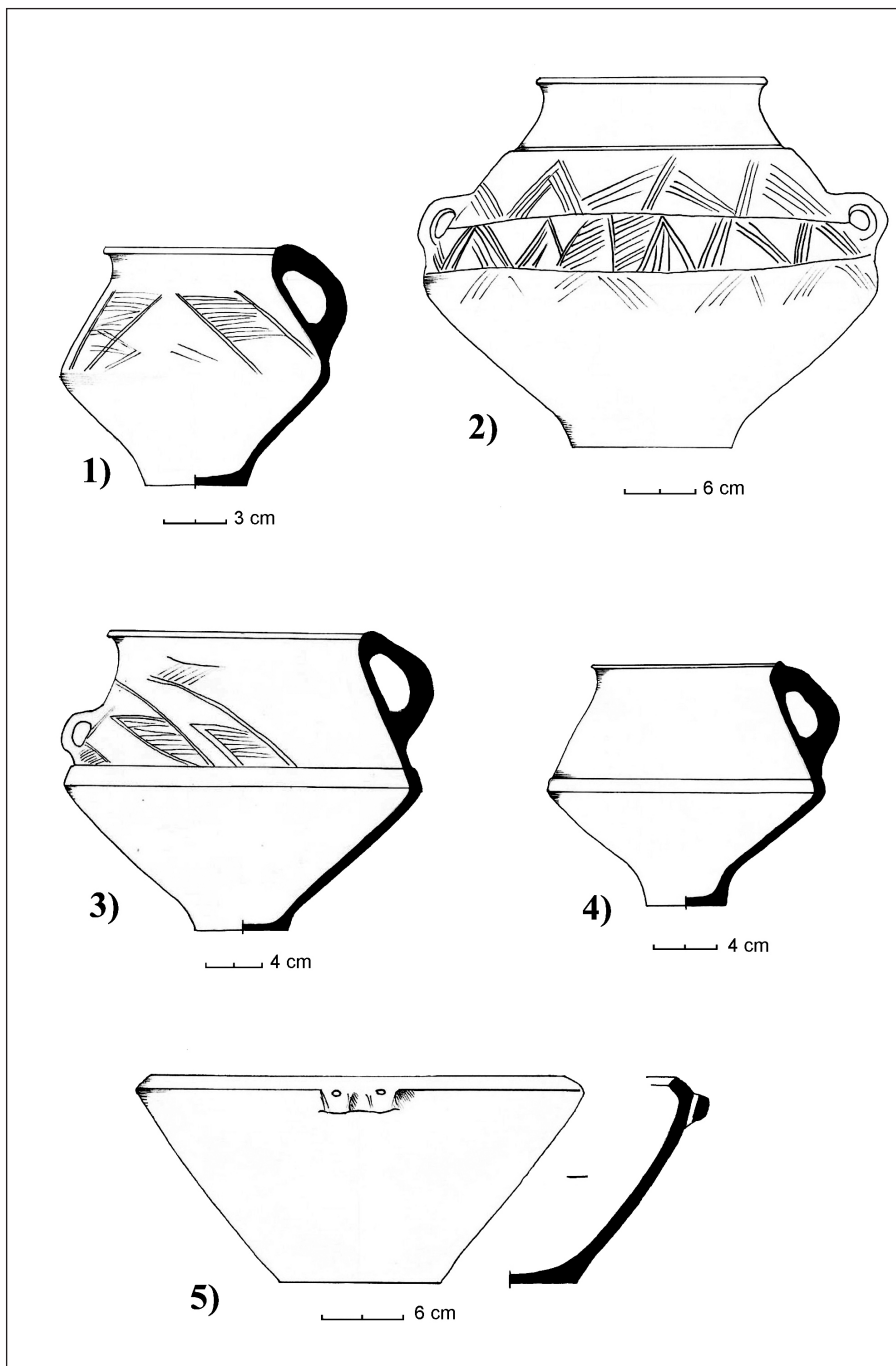


Pl. 1. The topographic position of the site - Khatynly village, Tovuz district, Azerbaijan

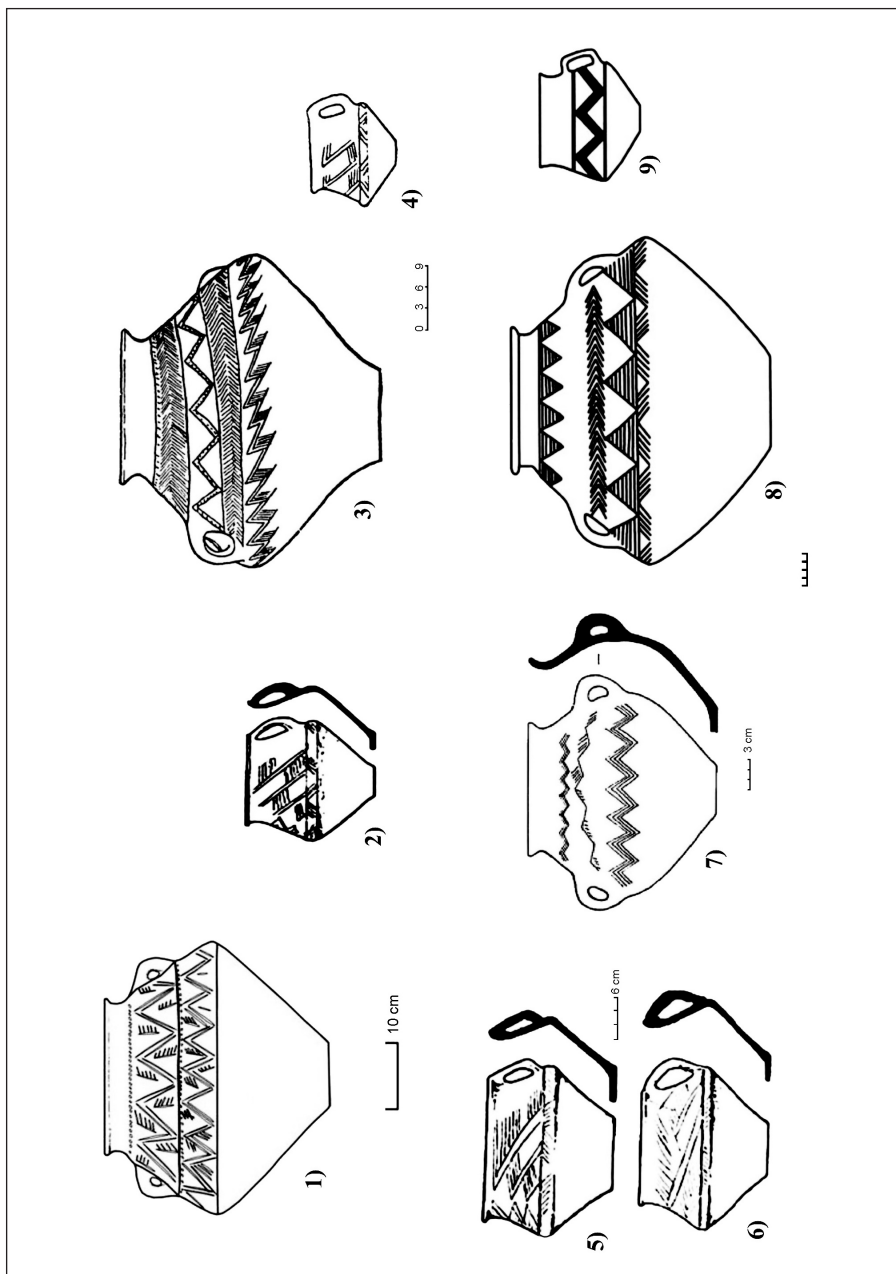
Pl. 1. Poziția topografică a sitului - satul Khatynly, districtul Tovuz, Azerbaidjan  
(<https://www.google.ru/maps/place/Khatynly,+Azerbaidjan/>)



Pl. 2. The Khatynly grave  
Pl. 2. Mormântul de la Khatynly



Pl. 3. The ceramic vessels from Khatynly grave  
Pl. 3. Vasele din mormântul de la Khatynly

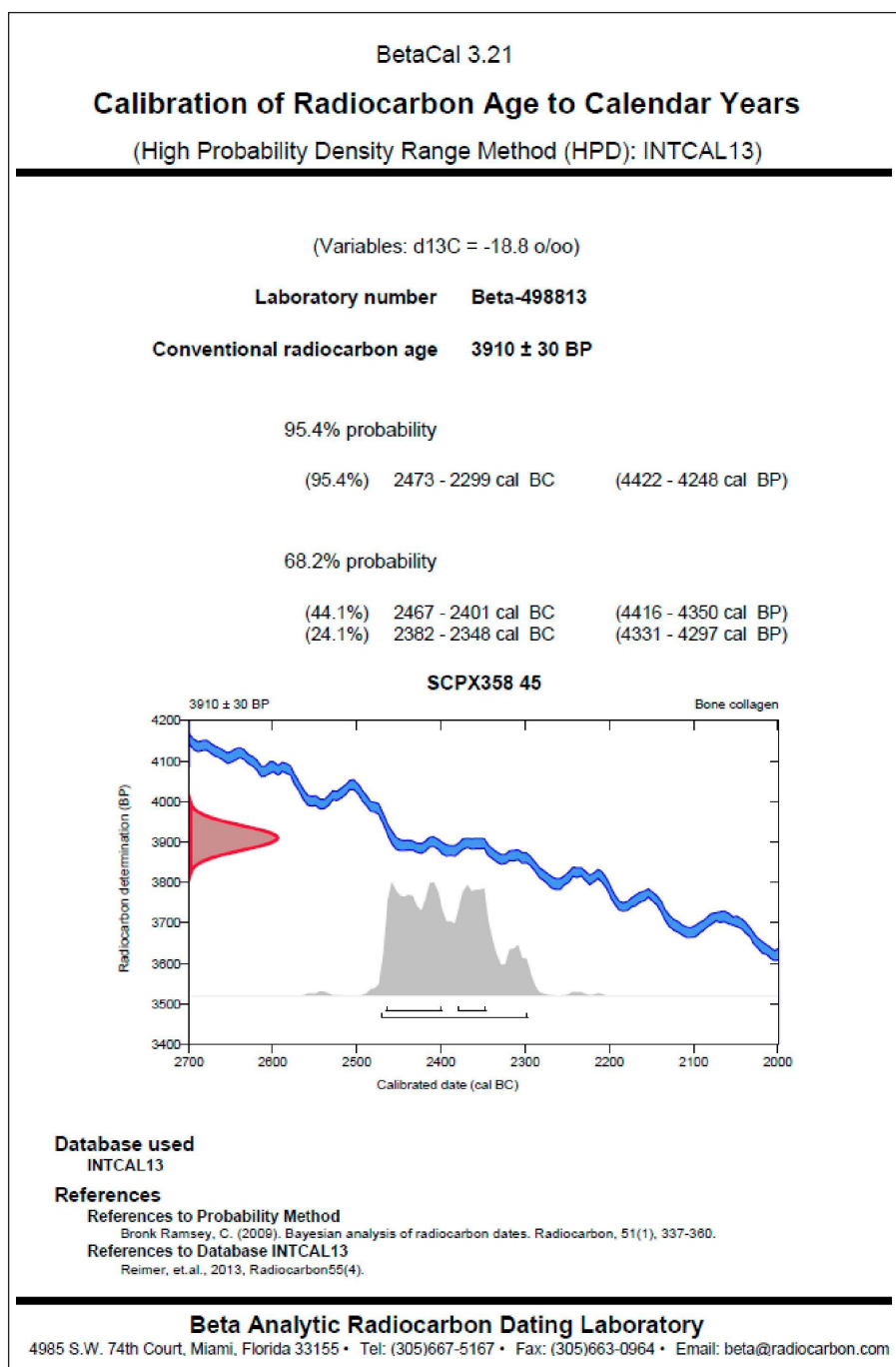


**Pl. 4.** The ceramic vessels of the Martkopi/Bedeni complex of Eastern Georgia (Sagona 2017; Orjonikidze 2015). 1-2. Martkopi, barrow No. 2; 3-4. Kvemo Kartli, barrow No. 5; 5-6. Martkopi, barrow No. 4; 7. Dalismta, barrow No. 5; 8-9. Tqemlara, barrow No. 2.

**Pl. 4.** Vasele din complexul Martkopi/Bedeni din Georgia de Est (Sagona 2017; Orjonikidze 2015). 1-2. Martkopi, tumulul nr. 2; 3-4. Kvemo Kartli, tumulul nr. 5; 5-6. Martkopi, tumulul nr. 4; 7. Dalismta, tumulul nr. 5; 8-9. Tqemlara, tumulul nr. 2.

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|  <b>Beta Analytic</b><br>RADIOCARBON DATING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                            | <b>Beta Analytic Inc</b><br>4985 SW 74 Court<br>Miami, Florida 33155<br>Tel: 305-667-5167<br>Fax: 305-663-0964<br>beta@radiocarbon.com |                       | <b>Mr. Darden Hood</b><br>President<br><br><b>Mr. Ronald Hatfield</b><br><b>Mr. Christopher Patrick</b><br>Deputy Directors |  |
| ISO/IEC 2005:17025-Accredited Testing Laboratory                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                            |                                                                                                                                        |                       |                                                                                                                             |  |
| <b>REPORT OF RADIOCARBON DATING ANALYSES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                            |                                                                                                                                        |                       |                                                                                                                             |  |
| David Maynard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                            | Report Date: July 25, 2018                                                                                                             |                       |                                                                                                                             |  |
| Landsker Archaeology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            | Material Received: July 05, 2018                                                                                                       |                       |                                                                                                                             |  |
| Laboratory Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                            | Sample Code Number                                                                                                                     |                       | Conventional Radiocarbon Age (BP) or Percent Modern Carbon (pMC) & Stable Isotopes                                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                            |                                                                                                                                        |                       | Calendar Calibrated Results: 95.4 % Probability High Probability Density Range Method (HPD)                                 |  |
| Beta - 498813                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | SCPX358 45                 | 3910 +/- 30 BP                                                                                                                         | IRMS δ13C: -18.8 o/oo |                                                                                                                             |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                            |                                                                                                                                        | IRMS δ15N: +11.6 o/oo |                                                                                                                             |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | (95.4%) 2473 - 2299 cal BC | (4422 - 4248 cal BP)                                                                                                                   |                       |                                                                                                                             |  |
| Submitter Material: Bone (Non-heated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |                                                                                                                                        |                       |                                                                                                                             |  |
| Pretreatment: (bone collagen) collagen extraction; with alkali                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |                                                                                                                                        |                       |                                                                                                                             |  |
| Analyzed Material: Bone collagen                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                            |                                                                                                                                        |                       |                                                                                                                             |  |
| Analysis Service: AMS-Standard delivery                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                            |                                                                                                                                        |                       |                                                                                                                             |  |
| Percent Modern Carbon: 61.46 +/- 0.23 pMC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                            |                                                                                                                                        |                       |                                                                                                                             |  |
| Fraction Modern Carbon: 0.6146 +/- 0.0023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                            |                                                                                                                                        |                       |                                                                                                                             |  |
| D14C: -385.38 +/- 2.30 o/oo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                            |                                                                                                                                        |                       |                                                                                                                             |  |
| Δ14C: -390.41 +/- 2.30 o/oo(1950:2,018.00)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                            |                                                                                                                                        |                       |                                                                                                                             |  |
| Measured Radiocarbon Age: (without d13C correction): 3810 +/- 30 BP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |                                                                                                                                        |                       |                                                                                                                             |  |
| Calibration: BetaCal3.21: HPD method: INTCAL13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |                                                                                                                                        |                       |                                                                                                                             |  |
| Carbon/Nitrogen: CN : 3.3 %C: 31.67 %N: 11.15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                            |                                                                                                                                        |                       |                                                                                                                             |  |
| <small>Results are ISO/IEC-17025:2005 accredited. No sub-contracting or student labor was used in the analyses. All work was done at Beta in 4 in-house NEC accelerator mass spectrometers and 4 Thermo IRMS. The "Conventional Radiocarbon Age" was calculated using the Libby half-life (5568 years), is corrected for total isotopic fraction and was used for calendar calibration where applicable. The Age is rounded to the nearest 10 years and is reported as radiocarbon years before present (BP), "present" = AD 1950. Results greater than the modern reference are reported as percent modern carbon (pMC). The modern reference standard was 95% the IAC signature of NIST SRM-4990C (oxalic acid). Quoted errors are 1 sigma counting statistics. Calculated signals less than 30 BP on the Conventional Radiocarbon Age are conservatively rounded up to 30. d13C values are on the material itself (not the AMS d13C). d13C and d15N values are relative to VPDB-1. References for calendar calibrations are cited at the bottom of calibration graph pages.</small> |                            |                                                                                                                                        |                       |                                                                                                                             |  |

Pl. 5. The Khatynly burial, radiocarbon data  
 Pl. 5. Data radiocarbon a mormântului de la Khatynly



Pl. 6. The Khatynly burial, radiocarbon data  
Pl. 6. Data radiocarbon a mormântului de la Khatynly



Pl. 7. The Khatynly burial, *in situ* photo  
Pl. 7. Mormântul de la Khatynly, fotografie *in situ*



Pl. 8. The ceramic vessels from the Khatynly burial  
Pl. 8. Vasele descoperite în mormântul de la Khatynly



**Pl. 9.** The vessel from Martkopi, Georgian National Museum, Tbilisi  
(photo credit: the author)

**Pl. 9.** Vasul de la Martkopi, Muzeul Național din Georgia, Tbilisi (fotografia autorului)



**Pl. 10.** The Early Trialeti ceramic vessel (Sagona 2017, Pl. 7.5, p. 312)

**Pl. 10.** Vasul de la Trialeti (Sagona 2017, Pl. 7.5, p. 312)