

**THE FOUNDATIONS OF RADIOCARBON
CHRONOLOGY OF CULTURES BETWEEN
THE VISTULA AND DNIEPER:
3150-1850 BC**

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Editor's Foreword

This volume of the *Baltic Pontic Studies* focuses on the results of the research carried out so far into the absolute (radiocarbon) chronology of the area lying between the Vistula and Dnieper or the bio-cultural borderland between the West and East of Europe. Absolute chronology is treated here both as a research goal and fundamental premise in the broader studies of the chronometric and development synchronization of "borderland" cultural systems. In a series of articles devoted to individual taxa a considerable number of new ^{14}C dates have been compared. The dates concern source materials that have been chosen from the point of view of their representativeness and chronometric value ("short-lived" materials were preferred to minimize a potential error). The vast majority of analyses were purposefully made in the same ^{14}C laboratory of the *State Scientific Center of Environmental Radiogeochemistry of Ukrainian Academy of Sciences* in Kiev taking advantage of funds generously provided by the *Polish Committee for Scientific Research*.

The volume devoted to the "dark" section of the "borderland" history (3150-1850 BC) is the first but not the last publication on the broader issues mentioned above that we intend to present in the near future.

Editorial comment

1. All dates in the B-PS are calibrated [see: Radiocarbon vol.28, 1986, and the next volumes]. Deviations from this rule will be point out in notes.
2. The names of the archaeological cultures and sites are standarized to the English literature on the subject (e.g. M. Gimbutas, J. P. Mallory). In the case of a new term, the author's original name has been retained.
3. The spelling of names of localities having the rank of administrative centres follows official, state, English language cartographic publications (e.g. *Ukraine, scale 1 : 2 000 000*, Kiev: Mapa LTD, edition of 1996).

Victor I. Klochko, Vladimir A. Kruts

RADIOCARBON DATES FROM THE YAMNAYA CULTURE BARROW AT THE TRIPOLYE CULTURE “GIANT SETTLEMENT” NEAR TALYANKY

The “giant settlement” of the late Tripolye culture (TC) near the village of Talyanky, in the Talne District of the Cherkasy Region, has been studied by researchers led by Vladimir A. Kruts for many years [Kruts 1994: 29-30, Fig. 2]. In 1986, the fourth burial mound (hereinafter, barrow 4) of the Yamnaya culture (YC) was excavated at the site of the settlement by an expedition led by Victor I. Klochko.

Barrow 4 was located at the south-eastern end of the settlement. It was 0.7 m high and about 22 m in diameter. It was built over the remains of two constructions of the TC (so-called “ploshchadki” or grounds) that belonged to the outer row of the settlement constructions - “ploshchadki” 13 and 14. The bank of the barrow (heavily smoothed down by modern ploughing) consisted of black earth and contained a large number of fragments of baked clay and ceramics from the partially ruined remains of the TC huts (Fig. 1).

1. THE GRAVES

Grave 1 (the YC) (Fig. 1; 2:1) was situated 1.5 m to the north of the assumed centre of the barrow and represented the main (primary) grave. The discharge (i.e. the soil taken out in the process of digging the grave) was scattered along the western wall of the pit in a layer 7 m long, up to 2 m wide and up to 0.5 m high. The lower part of the discharge consisted of humus, while the upper level was formed of mainland clay.

The rectangular pit, its walls slightly slanted inwards, was 1.9 m x 1.1 m in size, and 0.8 m deep from the edge (the level of buried soil). Its long sides were oriented along the north-east-to-south-west line. The filling was of humus, with occasional

small pieces of wood from the “ceiling”. It was a double grave. Skeleton 1, of an adolescent (still with some milk teeth)¹ lay on its back at the eastern wall of the pit, with its arms extended along the body. The legs, bent at the knees, later fell to the right. The bones were covered with a thick layer of raddle. Skeleton 2 belongs to an adult. It lay on its back, head to the north-east, arms slightly bent at the elbows and extended along the body. The legs had been bent at the knees and fell to the right and to the left; the feet had been positioned next to each other.

The whole floor of the pit under skeleton 1 displayed traces of a mat woven of plant fibre (linen); in addition, there were traces of another covering, which had been put over the first mat, currently represented by brownish rot, thickly covered with ochre. At the bottom of the pit, near the left heel bone of skeleton 1, there was a flint tool (a scraper?) made of a triangular flake of yellow local stone, with one edge retouched.

The radiocarbon date of the grave — 3990 ± 50 BP (Ki-6714) was obtained from the human bones.

Grave 2 (the YC) (Fig. 1; 2:2) was located 2.5 m to the east of the assumed centre, cut into the edge of the first bank. Its discharge lay at the foot of the first bank, practically on the mainland clay, covered with a thin layer of humus (up to 10cm thick) (the rest of the humus in this place had been used for the construction of the first bank). The discharge, up to 0.4 m high, consists of two parts: humus (below) and clay (above).

The rectangular pit was 1.8 m x 1.1 m in size, 1.3 m deep from the edge, its long sides oriented along the north-east-to-south-west line. The filling is heavily mixed, containing occasional small fragments of wood from the “ceiling”. The skeleton of an adult man lay on its back, head towards the north-east, arms slightly bent and positioned along the body. The legs, bent at the knees, fell to the left. The floor of the pit displayed traces of a rug woven from plant fibre. On top of this, under and along the bones of the skeleton, there are traces of brown rot (remains of clothes?). Two coals were placed above the skull.

This grave is the main grave of the second bank.

The radiocarbon date of the grave — 3945 ± 50 BP (Ki-6715) was obtained from the human bones.

Grave 3 (the YC) (Fig. 1; 3:1) was located 5 m to the north-west of the assumed centre, cut into the edge of the second and first banks. The clay discharge, up to 0.4 m high, was placed on the slope of the second bank.

The rectangular pit, with slightly convex walls, was 2 m x 1.2 m in size and 1.3 m deep. The filling contained white rot (remainders of the ceiling made of some organic material?). The skeleton of an adult lay on its back; the arms extended along the body; the legs, bent at the knees, falling to the right.

The bottom of the pit displayed the remains of a rug made from plant fibre.

¹ Here and below anthropological definitions are given by Dr. Svetlana Kruts.

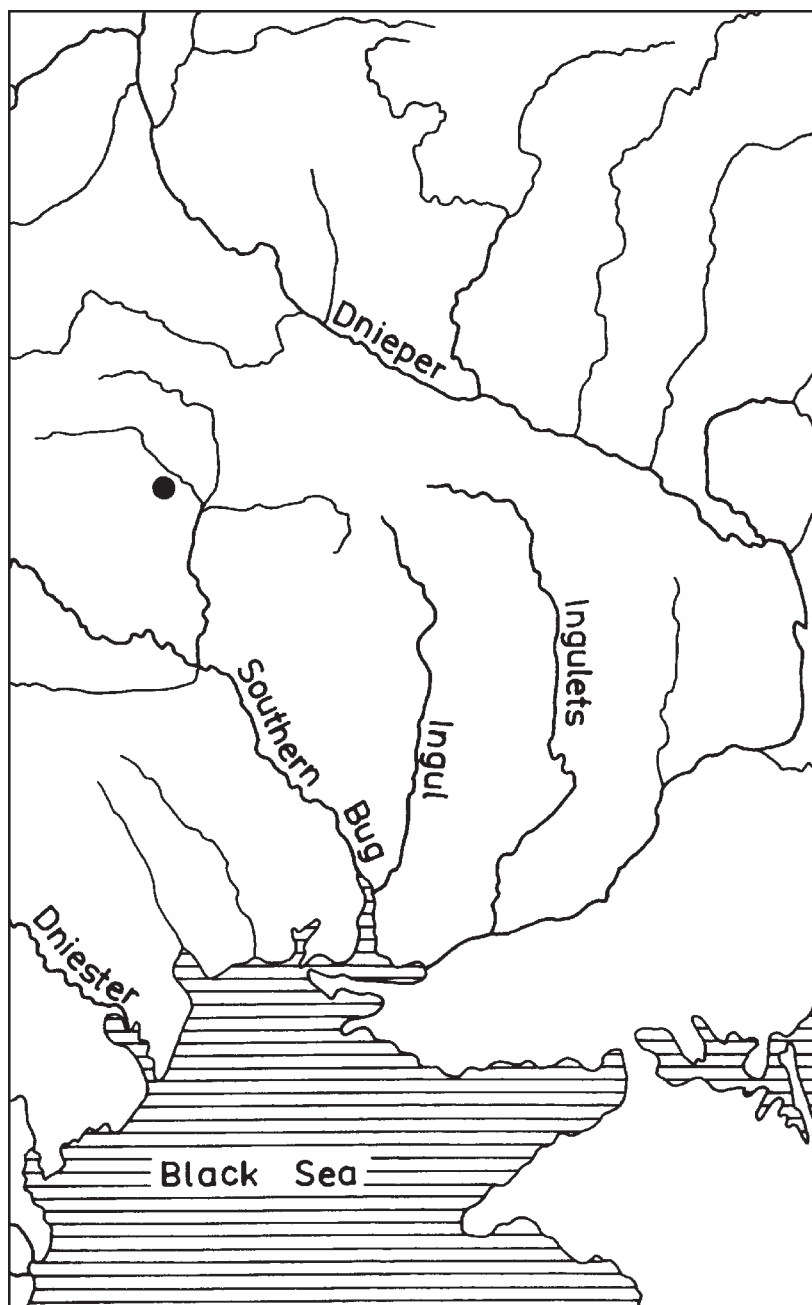
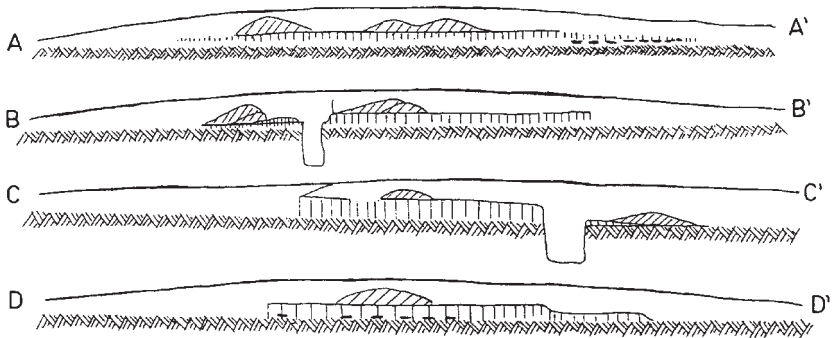
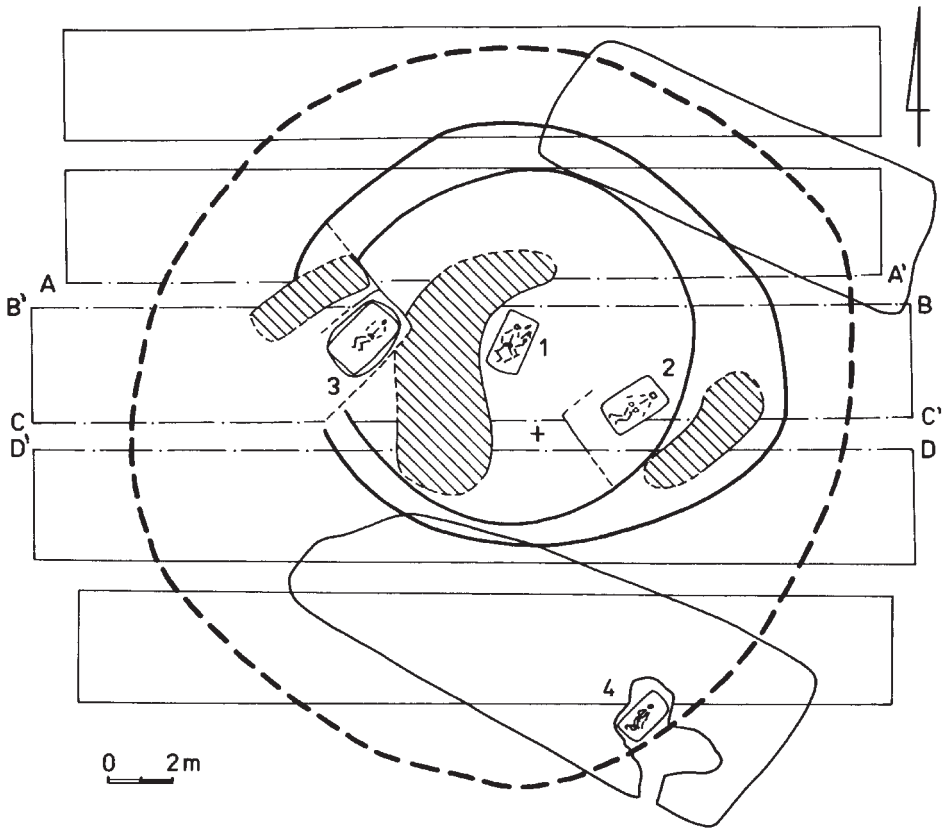


Fig. 1. Talyanky, Cherkasy Region. Location of the site (left) and plan of the barrow 4 (right)



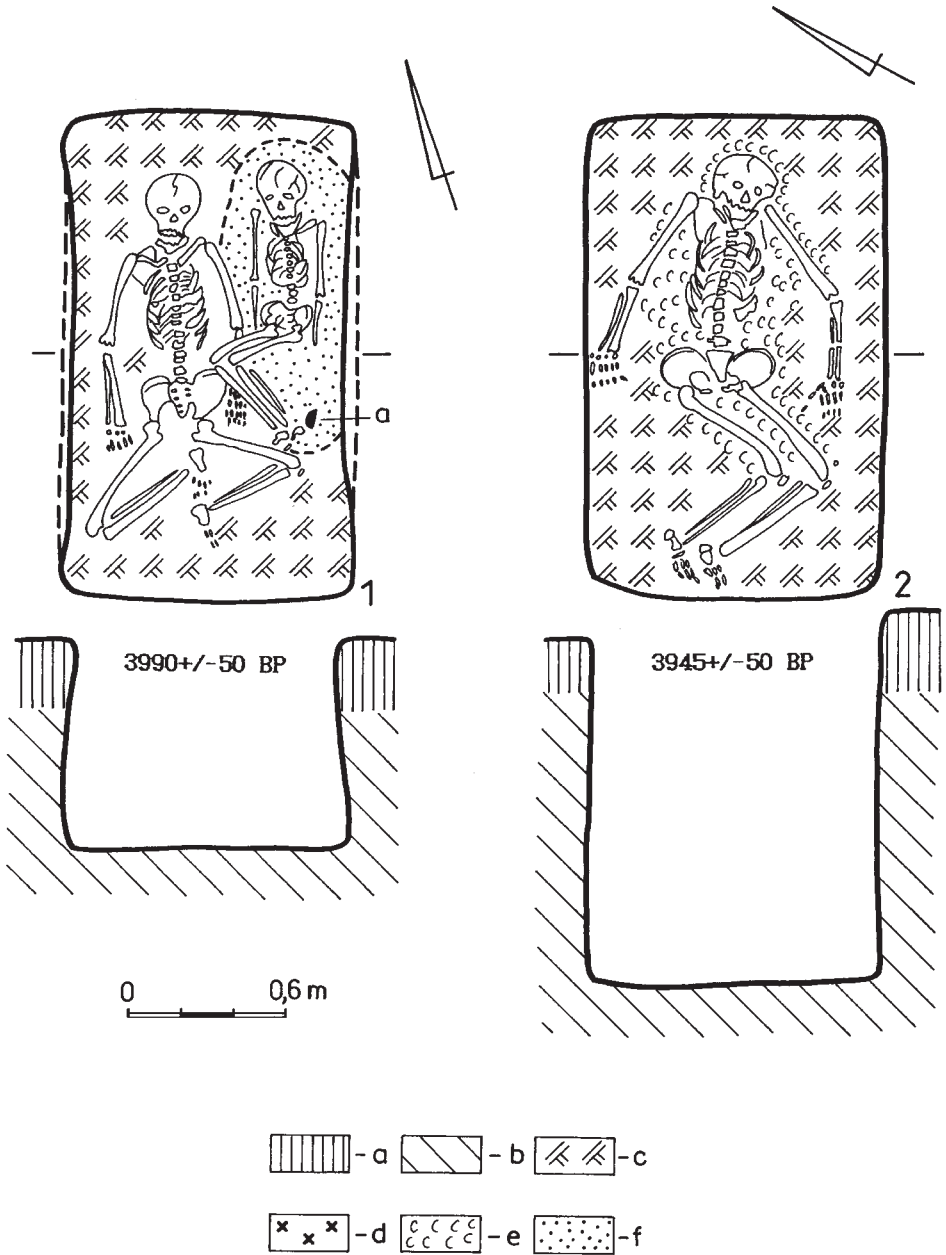


Fig. 2. Talyanky, Cherkasy Region. The barrow of the Yamnaya culture: 1 - grave 1 (a - flint tool); 2 - grave 2
 Key: a - humus (arable layer); b - rock-bed (clay); c - remains of mat; d - charcoals; e - ochre; f - remains of plant fibres

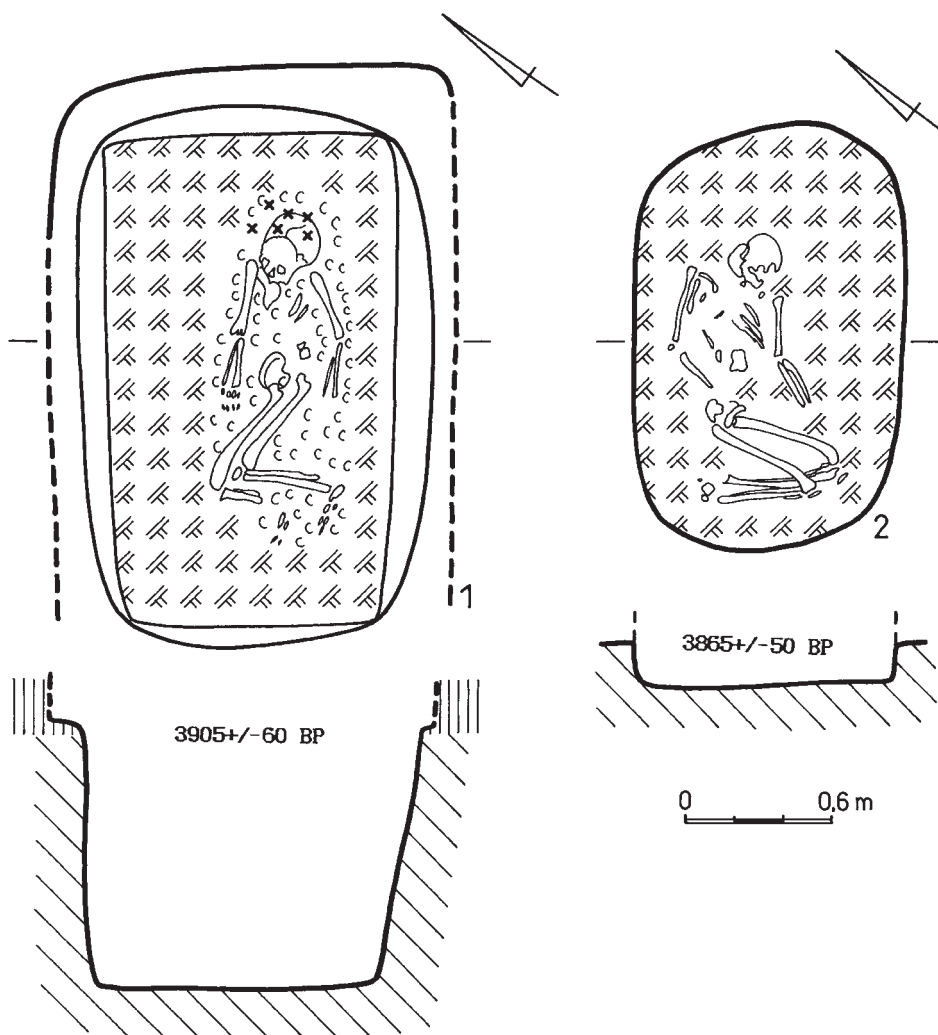


Fig. 3. Talyanky, Cherkasy Region. The barrow of the Yamnaya culture: 1 - grave 3; 2 - grave 4

The skull was covered with black, velvet-like rot (remains of a head-dress?), while both under and over the bones of the skeleton was a brown-coloured rot (remains of clothes?). Two coals were found near the skull.

The radiocarbon date of the grave — 3905±60 BP (Ki-6716) was obtained from the human bones.

Grave 4 (the Late YC) (Fig. 1; 3:2) was located 8.5 m to the south-east of the

assumed centre, in the field of the third bank. While this grave was being made, the TC “ploshchadka” was broken through.

The rectangular pit was 1.8 m x 1.1 m in size, and about 0.9 m deep, with its long sides oriented along the north-east-to-south-west line. The skeleton of an adult man lay in a foetal position on its left side, head towards the north-east, with the arms extended along the body, and the legs bent at the knees, heels under the pelvis.

The bottom of the pit displayed traces of a rug that had decayed into brown rot. This grave — the latest in the barrow — was sunk into the bevel of the third bank.

The radiocarbon date of the grave — 3865 ± 50 BP (Ki-6717) was obtained from the human bones.

2. STRATIGRAPHY OF THE BARROW 4

Bank 1. The original bank of the barrow was made over grave 1. The diameter can be reconstructed from the edge of the burial soil as being no more than 5.5 m. Its height remains unknown, since the top of the bank was destroyed by ploughing. The bank was made from humus, with lumps of clay, baked clay and ceramics from the ruined TC “ploshchadki”. Most probably, turf cut nearby was used as construction material for this and two other banks of the barrow.

Bank 2 was made over grave 2, sunk in the eastern slope of the first bank. The bank is oval in shape, 13 to 15 m in diameter. It was built from humus, with admixtures of baked clay and ceramics from the ruined TC “ploshchadki”.

Bank 3 was built over grave 3, sunk in the western slope of the second and first banks. The diameter can be reconstructed from the final excavation of soil in the field as being 21 to 22 m. The bank was made from humus, with admixtures of TC ceramics and baked clay.

CONCLUSIONS

The stratigraphy of the barrow and the series of radiocarbon dates, allow us to make the following observations.

- a. The Talyanky settlement of the TC dates back to 4800-4700 BP (3640-3460 BC)². Since life in the settlement ceased, the layer of soil over the remains of the TC huts has reached up to 10 cm.
- b. The construction of the barrow began (date of the primary grave, no.1) in 3990±50 BP (2502±71 BC).
- c. The second bank of the barrow (grave 2) was built in 3945±50 BP (2398±78 BC). The third bank of the barrow (grave 3) was built in 3905±60 BP (2371±86 BC).
- d. Hence, the early YC graves in this barrow date back to 4000-3900 BP. The Late YC grave (grave 4) dates back to 3865±50 BP (2309±89 BC).

Translated by Maria Ogiyenko

² The dates ¹⁴C (from the animal bones) 4755±50 BP (Ki-6865); 4720±60 BP (Ki-6866); 4810±55 BP (Ki-6867); 4780±60 BP (Ki-6868) = 3640-3460 BC.

ABBREVIATIONS

AO	– Arkheologicheskiye otkrytya, Moskva.
AJA	– American Journal of Archaeology, New York.
BPS	– Baltic-Pontic Studies, Poznań.
EA	– Eurasia Antiqua, Berlin.
FPP	– Folia Praehistorica Posnaniensia, Poznań.
KSIA	– Kratkiye soobshcheniya Instituta Arkheologii, Moskva.
KSIA AN USSR	– Kratkiye soobshcheniya Instituta Arkheologii AN USSR, Kiev.
KSIIIMK	– Kratkiye soobshcheniya Instituta Istorii Materialnoy kultury, Moskva.
KSOGAM	– Kratkie Soobshcheniya Odesskogo Gosudarstvennogo Arkheologicheskogo Muzeya, Odessa.
MIA	– Materialy i issledovaniya po arkheologii, Moskva.
NA IA NANU	– Naukovy Arkhiv Instituta Arkheologii Nacionalnoi Akademii Nauk Ukrainu, Kiev.
SA	– Sovetskaya Arkheologia, Moskva.
SpA	– Sprawozdania Archeologiczne, Kraków.
ZFA	– Zeitschrift für Archäologie, Berlin.

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