

Hanna Olczak<sup>1</sup>, Dariusz Krasnodębski<sup>2</sup>,  
Roman Szlązak<sup>3</sup>, Joanna Wawrzeniuk<sup>4</sup>

## THE EARLY MEDIEVAL BARROWS WITH KERBSTONES AT THE LEŚNICTWO POSTOŁOWO SITE 11 IN THE BIAŁOWIEŻA FOREST (SZCZEKOTOWO RANGE)

### ABSTRACT

Olczak H., Krasnodębski D., Szlązak R., Wawrzeniuk J. 2020. The Early Medieval Barrows with Kerbstones at the Leśnictwo Postołowo Site 11 in the Białowieża Forest (Szczekotowo Range). *Sprawozdania Archeologiczne* 72/2, 511-537.

In the western part of the Białowieża Forest, on the grounds of the Szczekotowo Range, one can find one of the largest and most interesting Early Medieval sepulchral complexes in the Middle Bug River basin. One part of it is the cemetery at Leśnictwo Postołowo Site 11, which includes five burial mounds surrounded by settings of kerbstones. In a barrow, which was excavated in 2017, an inhumation burial of a woman dating back to the 12th century and equipped with a necklace of glass beads was discovered. This site is another excavated cemetery from the Białowieża Forest area, where – in contrast to other regions of the Upper Narew and Middle Bug River basins – the barrow was the most common type of grave in the younger phase of the Early Middle Ages. This article presents various aspects of the investigated burial, which undoubtedly casts new light on our knowledge about the Mazovian-Rus' cultural borderland during the period of state formation.

Keywords: Białowieża Forest, Early Middle Ages, barrow cemeteries, Mazovian-Rus' borderland

Received: 09.04.2020; Revised: 17.04.2020; Accepted: 15.07.2020

1 hannaolczak@yahoo.co.uk; <https://orcid.org/0000-0003-3231-7347>

2 Institute of Archaeology and Ethnology, Polish Academy of Sciences, Aleja Solidarności 105, 00-140 Warszawa, Poland; [krasnodedbskid@onet.poczta.pl](mailto:krasnodedbskid@onet.poczta.pl); <https://orcid.org/0000-0001-7096-1227>

3 Institute of Archaeology, Cardinal Stefan Wyszyński University in Warsaw, Wóycickiego 1/3, building 23, 01-938 Warszawa, Poland; [romszla@gmail.com](mailto:romszla@gmail.com); <https://orcid.org/0000-0002-2111-5013>

4 Institute of Archaeology, Cardinal Stefan Wyszyński University in Warsaw, Wóycickiego 1/3, building 23, 01-938 Warszawa, Poland; [j.wawrzeniuk@uksw.edu.pl](mailto:j.wawrzeniuk@uksw.edu.pl); <https://orcid.org/0000-0002-2157-3559>

## INTRODUCTION

The cemetery forms part of a large multicultural sepulchral and settlement complex located in the western part of the Białowieża Forest (Hajnówka Forest District), in the so-called Szczekotowo Range (Figs 1 and 2). Numerous archaeological sites, which date from the Neolithic to the Modern period, are situated in an area of approximately 60 hectares on both banks of the Łutownia River, a tributary of the Narewka River. Most of them are remains of earthworks, such as Early Medieval barrows and mounds associated with modern

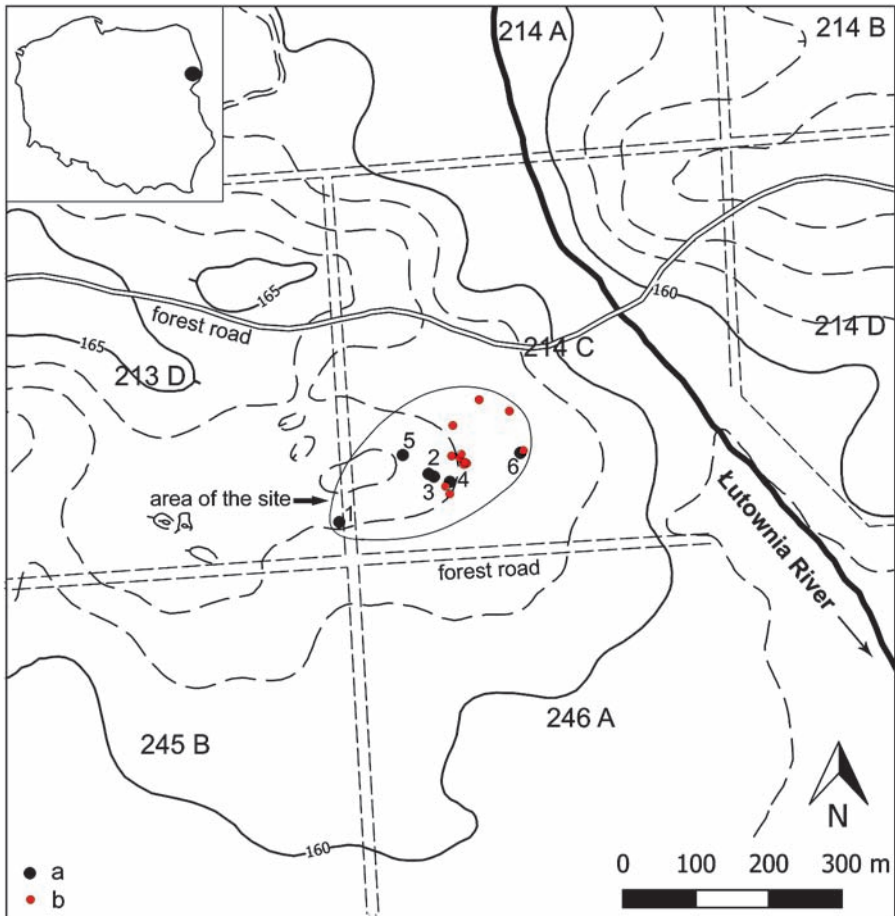
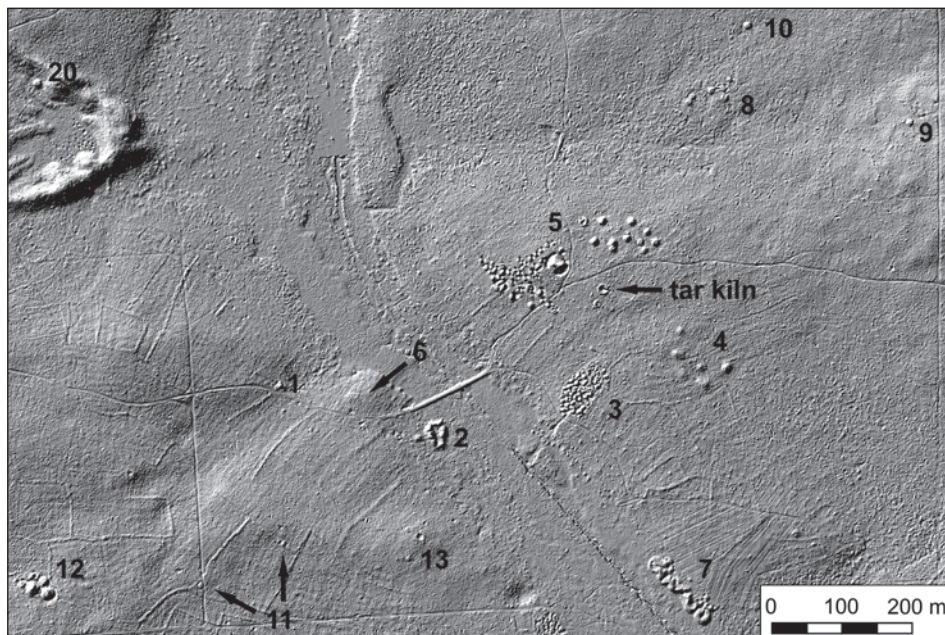


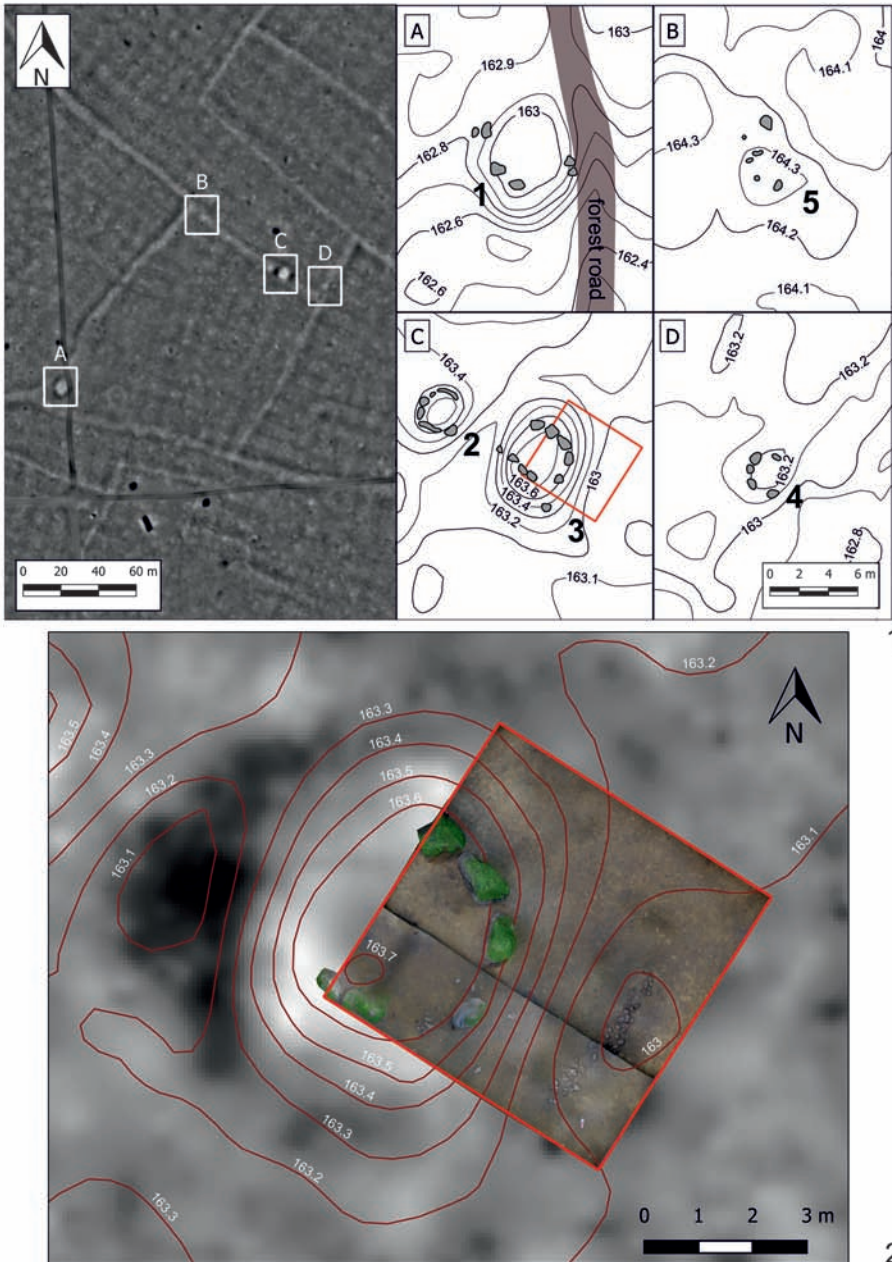
Fig. 1. Białowieża Forest, Leśnictwo Postołowo Site 11. Location of the site on topographic map: a – earthen mounds (1-5 – Early Medieval barrows, 6 – Modern mound), b – finds from field survey (source of the map: Head Office of Geodesy and Cartography).

Illustrated by H. Olczak and R. Szlązak



**Fig. 2.** Białowieża Forest, Leśnictwo Postołowo. Location of archaeological sites in the Szczekotowo Range and the surrounding area (the numbers refer to the numeration of archaeological sites in the Postołowo Forest Range): 1 – Modern mound kiln; 2 – Modern mound kiln and charcoal piles; 3, 11 – Early Medieval inhumation barrows; 4, 8-10, 12, 20 – earthen mounds of unknown chronology and function; 5 – Early Medieval cremation barrows, earthen mounds of unknown chronology and function and modern tar kiln; 6 – multicultural settlement; 7 – Modern charcoal piles; 13 – Modern rubble mound.  
After Krasnodębski and Olczak 2018, fig. 10

charcoal and tar production. The archaeological sites of the Szczekotowo Range were described for the first time at the beginning of the 20th century by German archaeologist Alfred Götze, who investigated the mounds in the Białowieża Forest in 1917-1918. Among other places, he excavated a few mounds at two Early Medieval cemeteries located on the east bank of the Łutownia River, in forest compartment nos. 214C and 214D: a cremation cemetery at Leśnictwo Postołowo Site 5 and an inhumation cemetery at Leśnictwo Postołowo Site 3 (Götze 1929, 518-521, 531-540). Due to the unique natural resources and the presence of numerous archaeological monuments, in the late 1970s, thanks to the efforts of Prof. Janusz B. Faliński, an archaeological and natural Szczekotowo Reserve was established in this area (Faliński 1980, 136-137). Subsequent excavations were not carried out in the Szczekotowo Range until almost 100 years after the research of Alfred Götze. In 2014 and 2016, an expedition of the Institute of Archaeology and Ethnology of the Polish Academy of Sciences in Warsaw (IAE PAS) not only investigated additional barrows, but also discovered several new sites, mainly settlements, and both the chronology and function



**Fig. 3.** Białowieża Forest, Leśnictwo Postołowo Site 11. 1 – area of the site according to Digital Elevation Model ISOK (Informatyczny System Ochrony Kraju in Polish, <https://www.geoportal.gov.pl>) and contour plans of the barrows; 2 – view of barrow no. 3 during excavation, using photogrammetry and Digital Elevation Model ISOK. Produced by M. Jakubczak and R. Szlązak

of already known sites were established (Krasnodębski and Olczak 2016; 2018, 38-43; Olczak *et al.* 2019, 57-61).

Leśnictwo Postołowo Site 11 is situated in the western part of the Szczekotowo Range (forest compartments 213D and 214C), on a small acclivity just to the west of the Łutownia River valley (*cf.* Fig. 1). It includes five round Early Medieval burial mounds (Fig. 3: 1), as well as relics of a multicultural settlement dated to the Neolithic period, the Early Iron Age or the Roman period, and the older phase of the Early Middle Ages. The site also revealed traces of human activity from the Modern period, in the form of a small mound, perhaps associated with charcoal production. In addition, there are low earth embankments in this area (*cf.* Fig. 3: 1), which are probably relics of an old, so-called Celtic field system.

The first information about the cemetery was published by Alfred Götze (1929, 518), who described one of the barrows (no. 1), located in forest compartment 213D, next to a forest road (Figs 1; 3: 1). Based on this, the site was added to the National Inventory of Historical Monuments under the name Puszcza Białowieska archaeological Site 21. A short mention of three barrows from forest compartment 214C was given by Janusz B. Faliński, who incorrectly interpreted them as flat graves surrounded by kerbstones (1980, 136). Irena Górska, who in the 1970s probably visited the site with Faliński, also mentioned the mounds located on the left bank of the Łutownia River, but did not give any details regarding them (Górska 1976, 112). In 1993, a field survey was carried out as a part of the Polish Archaeological Record (Archeologiczne Zdjęcie Polski or AZP in Polish), during which only the barrow mentioned by Alfred Götze was noticed (Site 45-91/17). In a catalogue developed in 1996 by Maciej Oszmiański, this mound was again the only one taken into account (Oszmiański 1996, Site 67, barrow no. 5). In 2016, the entire site was verified and described for the first time during the *Inventory of Cultural Heritage* project carried out by the IAE PAS as part of the *Assessment of the Condition of Biodiversity in the Białowieża Forest Based on Selected Natural and Cultural Elements* (Krasnodębski and Olczak 2018, 15). It was stated then that four features known from the National Inventory of Historical Monuments or mentioned in the relevant literature, along with the newly discovered fifth feature, due to their similar shape, form one barrow cemetery. Nearby remains of a modern mound (no. 6) and relics of a multicultural settlement were also considered to be a part of the same site (*cf.* Fig. 1).

Excavation at the site was carried out in the summer of 2017 by the Institute of Archaeology of the Cardinal Stefan Wyszyński University in Warsaw and the IAE PAS in Warsaw. It was part of the *Cultural and Natural Heritage of the Białowieża Forest* project, financed by the National Science Centre and headed by Prof. Przemysław Urbańczyk, in cooperation with Joanna Wawrzoniuk, PhD. The investigations were led by Hanna Olczak and Dariusz Krasnodębski, in cooperation with Roman Szlązak.

## CHARACTERISTICS OF THE CEMETERY AND THE EXCAVATED BARROW

The burial mounds making up the cemetery are characterized by kerbstones arranged at their bases and, less often, on their slopes (Figs. 3: 1, 2; 4). Located on the western edge of the site (forest compartment 213D), mound no. 1 is about 8 m in diameter and about 0.5 m in height (Fig. 3: 1A). At its base lie seven large kerbstones, which are remnants of a setting of unknown shape. Two stones on the eastern side are probably preserved *in situ*, while others are secondarily displaced. The kerb's destruction may be related with the information provided by Alfred Götze, according to whom the mound had been excavated in the past (1929, 518). The other four barrows are located about 115-120 m to the northeast, in forest compartment 214C. They form roughly a line, which is oriented northwest – southeast (Figs. 1; 3: 1). The best-preserved mounds (nos. 2-4) are located close to each other, at a distance of a few to about 15 m. Two of them (nos. 2 and 4) are small – about 3 m in diameter and up to about 0.4 m in height. At their bases, there are partially destroyed, roughly square settings built of closely adjoining large stones, of which six or seven have survived to this day (Fig. 3: 1C, 1D). Between barrows 2 and 4 lies the largest mound (no. 3), about 9-10 m in diameter and about 0.8 m in height. In the upper part of its slope, ten kerbstones are visible, forming a partially damaged, rectangular or oval setting (Figs. 3: 1C; 4). At a distance of about 40 m to the northwest of this group lies another mound (no. 5), similar in size to barrows 2 and 4, with a kerb, of which only four or five stones have survived *in situ* (Fig. 3: 1B). In addition, a slight elevation was recorded north of burial mounds 2-5, which could be the remains of another, destroyed mound. All barrows from the eastern part of the cemetery are located on the top of the aforementioned embankments, while mound no. 1 is located near an intersection of two embankments (*cf.* Fig. 3: 1).

Barrow no. 3 was the one chosen for excavation. The kerbstones visible on its surface had lengths of 0.5-1.0 m, and roughly half of their height was underground (Figs. 3: 2; 4). Eight stones were probably *in situ* and created a rectangle or oval with an external length of about 4.5 m and a width of about 4.0 m, surrounding the top of the mound. The other two boulders, located in the lower part of the mound, were apparently dislocated. Between the kerbstones at the top of the barrow, there was a small depression with a diameter of about 1 m, indicating a former grave robbery. On the east and west, the mound was flanked by two pits, visible as slight depressions on the modern ground surface (*cf.* Fig. 3: 2).

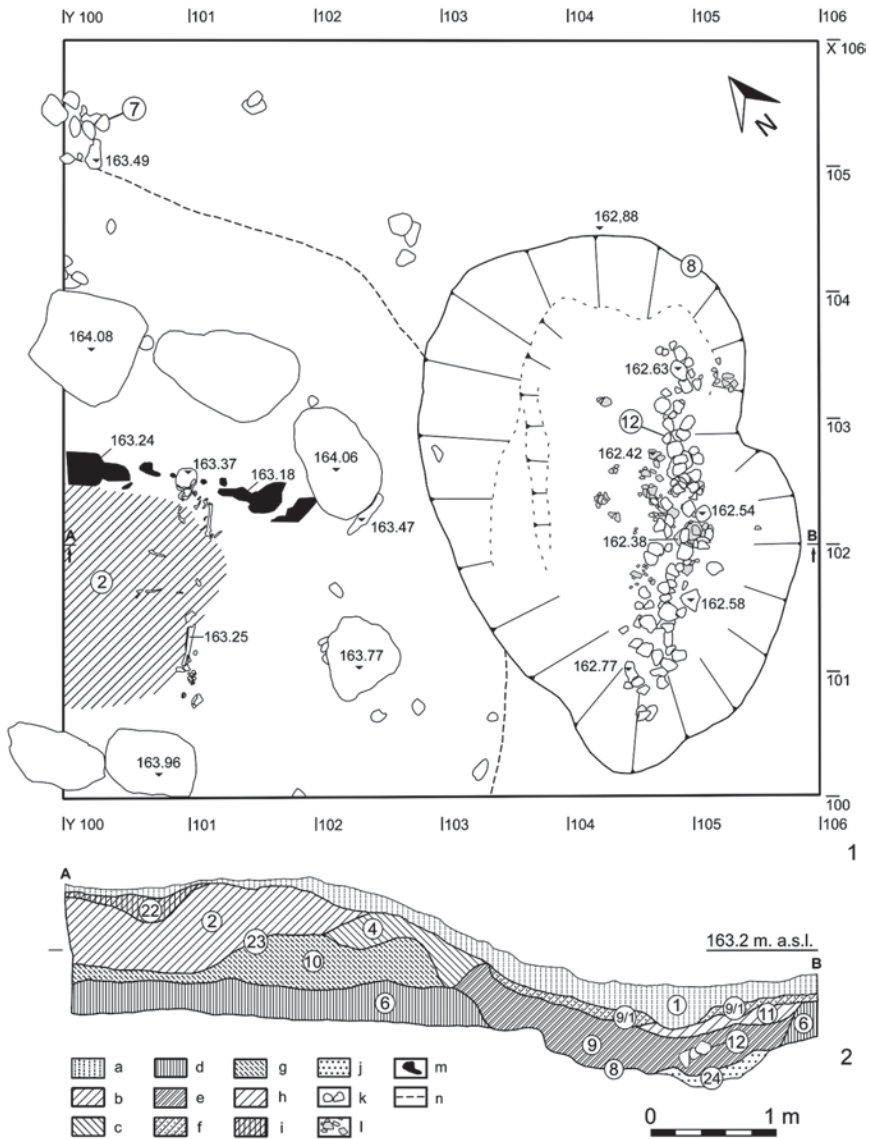
The archaeological trench, measuring 6 × 6 m, was marked out in the north-eastern part of the barrow and included its middle part and the pit adjacent to it on the east (Figs 3: 1C, 2). The surface of the mound was covered with a thin layer of plant litter and modern humus (layer 1), with an average thickness of 0.1-0.2 m (Fig. 5: 2). On northern edge of the trench there was a small cluster of cobblestones (layer 7; Figs 5: 1; 6), which was possibly a remnant of the mantle originally covering the barrow. A dozen or so small-sized stones were also within a layer of brown sand (layer 4), which formed the mound's upper portion.

The thickness of this layer was difficult to estimate due to its high degree of destruction, but it probably reached about 0.5 m. Below, there was a layer of dark brown sand with a lot of small grey and brown patches, along with ferrous inclusions (layer 10), which ranged from 0.2 m to 0.4 m in thickness. Small charcoals were registered in both layers of the mound, especially in the lower one. Single fragments of Early Medieval pottery, as well as prehistoric artefacts (pottery, flint artefacts) were also found. The mound was built on a layer of buried soil (layer 6), the top part of which had previously been removed. It was a brown sand, containing several dozen pieces of prehistoric and Early Medieval pottery, as well as a few flint artefacts. Under the mound, the thickness of this layer was about 0.1-0.3 m, while on the mound's edge it reached 0.4 m.

Inside the ring of kerbstones, at a depth of about 0.5 m below the top of the mound, a severely damaged burial of a woman who died aged 20-25 was discovered (Tomczyk 2018). The dead lay on the top of the mound's lower layer, with no burial pit visible around the skeleton (Figs 5: 1; 7). The deceased was placed in an upright position on her back, with her head facing northeast. Only parts of the skeleton are preserved *in situ*, for example the skull, left humerus, and left tibia and fibula bones. The only artefacts noticed near the burial were one half of an opaque black glass bead (Figs 8: 10; 9: 4) found near the tibia bone, and fragments of a transparent blue glass bead discovered a dozen or so centimetres



Fig. 4. Białowieża Forest, Leśnictwo Postołowo Site 11. Barrow no. 3 before the excavation. Photo by R. Szlązak



**Fig. 5.** Białowieża Forest, Leśnictwo Postołowo Site 11. Plan of barrow no. 3 (1) and the profile along line X=102 (2): a – plant litter and modern humus; b – brown sand with yellow-brown patches, charcoal fragments and small and medium-sized stones; c – brown sand with yellow-brown patches and some very small charcoal fragments; e – brown sand with a few small charcoal fragments; f – dark brown sand; g – dark brown sand with a lot of small grey and brown patches, including ferriferous inclusions and small charcoal fragments; h – gray sand with patches of gray-brown and light gray sand; i – loose dark brown and black sand with small amount of charcoal and wood fragments; j – slightly clayey brown sand with patches of yellow-brown and yellow sand; k – stones; l – pottery fragments; m – burned wood; n – reconstructed boundary of the mound. Illustrated by R. Szlązak and H. Olczak





Fig. 6. Białowieża Forest, Leśnictwo Postołowo Site 11. Barrow no. 3 after removing the modern humus from the northern part of the excavation. Photo by H. Olczak



Fig. 7. Białowieża Forest, Leśnictwo Postołowo Site 11. The inhumation burial in barrow no. 3 during exploration (view from the south). Photo by H. Olczak

north of the skull. The chest and right side of the skeleton were destroyed by the aforementioned grave robbery. The robbery pit (feature 23) was about 3 m in diameter in its upper portion, with a depth of about 0.8-0.9 m. It was filled with brown, dark brown, and black sand (layers 2 and 22), containing stones, charcoal and fragments of partially burnt wood. In the pit, bones belonging to the skeleton (mainly those ones from its upper portion) were found, together with nine complete glass beads and a few preserved fragmentarily, as well as several dozen pieces of pottery, mainly prehistoric ones. However, no items that could help to determine the time of the grave's destruction were found. The other parts of the skeleton were unearthed on the top of the mound and on its edge, just under the plant litter.

On the top of the mound's lower layer, at the same level as the burial, remains of a burned pine plank (or planks) were unearthed (Fig. 5: 1). Its preserved width was about 0.2-0.3 m, and its length – within the trench – was about 2 m. Charcoal and traces of burning found east of the plank suggest that it was originally longer. The plank was oriented northwest – southeast, roughly perpendicular to the skeleton. At the place where it intersected with the burial, only a few charcoals were noticed. They were found below the skull of the deceased.

A large pit (feature 8), oval in plan and basin-shaped in cross-section, was discovered at the east side of the mound's base (Figs 5: 1, 2). Its dimensions were about 4.0 × 2.8 m, with a maximum depth of about 0.7 m. Two layers of cobblestones (layer 12) were unearthed in the brown sand (layer 9) constituting the main part of the pit's fill. The stones formed a line with a length of about 3 m and a width of about 0.4-0.6 m, extending through the middle of the pit and oriented northeast – southwest (Figs 5: 1; 10). Below the stones, numerous pottery fragments from two Early Medieval vessels were discovered (Figs 11; 12). The dispersion of the sherds indicates that the pots could have originally been placed at the bottom of the pit, where they were subsequently covered in a natural way with falling stones, possibly originating from the disturbed mantle of the mound.

## GRAVE GOODS AND OTHER EARLY MEDIEVAL FINDS

### Glass beads

As a result of the excavation, nine complete and eight partly preserved glass beads have been found, as well as a dozen or so fragments, probably deriving from about three more specimens. The most numerous among them are transparent blue glass beads made by a winding technique (Figs 8: 1-9, 11-13; 9: 1-3). Many of them are heavily corroded or covered in a matt coating. The chemical analysis of three beads of this type revealed that they were made of lead silicate glasses stained with copper and manganese (Ginter 2020). The colour of some beads indicates that the glass used for production could have been dimmed, for example by tin. They are spherical or ring-shaped, with a diameter ranging from 0.95

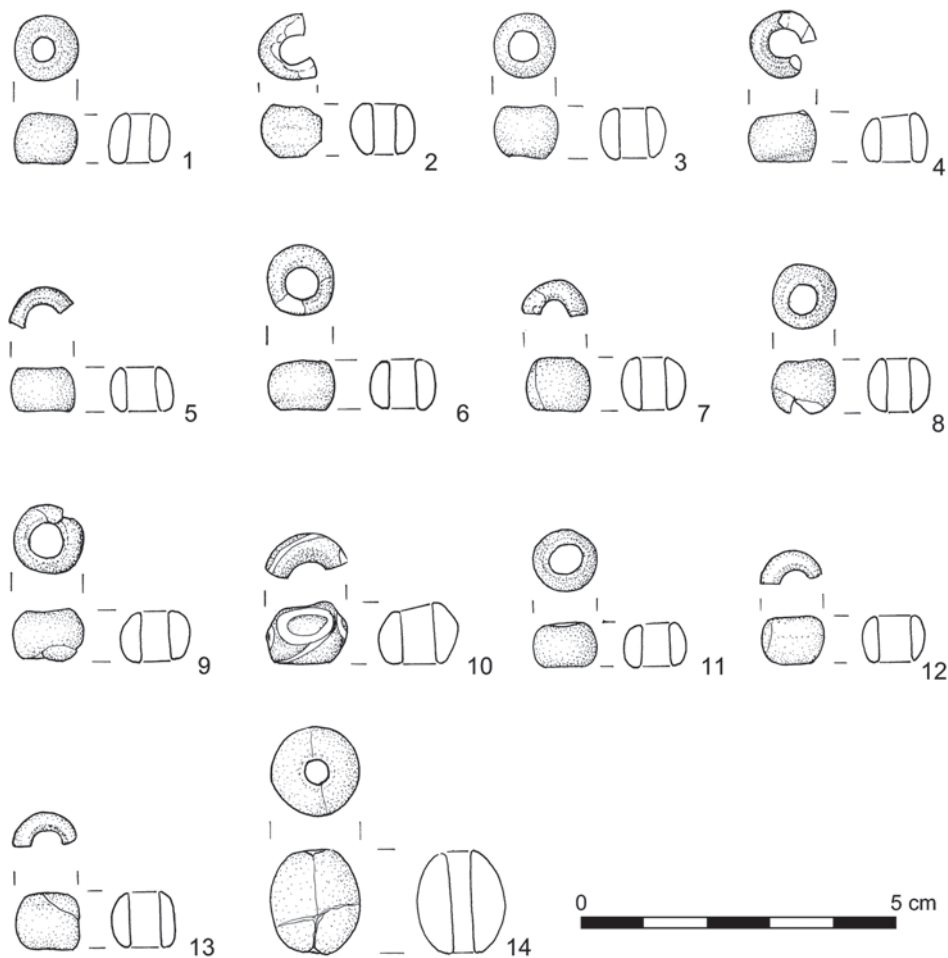


Fig. 8. Białowieża Forest, Leśnictwo Postołowo Site 11. Selection of glass beads from barrow no. 3: 1-8, 11 – robbery pit 23, layer 2; 9 – layer 4/robbery pit 23, layer 2; 10 – near the skeleton; 12-14 – robbery pit 23, layer 22. Illustrated by G. Nowakowska

to 1.08 cm, and a height ranging from 0.65 to 0.85 cm. Similar beads were also found in two graves at the neighbouring barrow cemetery at Leśnictwo Postołowo Site 3 (Götte 1929, 537, 540, plates 13: 1, 2). To the west of the Białowieża Forest, they were discovered at cemeteries in Kuraszewo (Jaskanis 1966, 246, plate XIII: 11 and the collection of the State Museum of History and Archaeology in Grodno), Zbucz Site 1 (Olczak *et al.* 2019, figs. 5.9: 5, 6) and Szczyty-Dzięciołowo Site 1 (Olczak and Krasnodębski 2019, fig. 11: 13). In more distant regions, beads of this type were found, among other places, at Daniłowo Małe Site 1, Suraż Site 2 (collection of the Podlachian Museum in Białystok), and Czarna

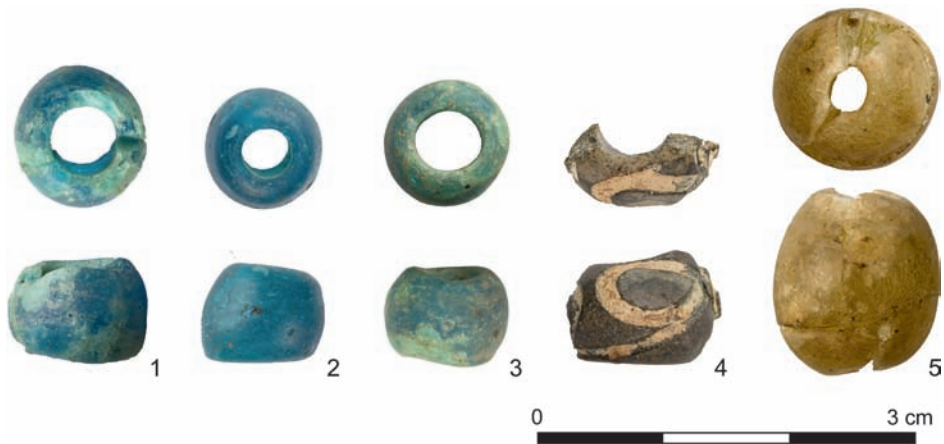


Fig. 9. Białowieża Forest, Leśnictwo Postołowo Site 11. Selection of glass beads from barrow no. 3: 1-3 – robbery pit 23, layer 2; 4 – near the skeleton; 5 – robbery pit 23, layer 22. Photo by R. Szlązak

Wielka Site 1 (Wajda 2014, 66, fig. 31: grave 199). It is usually assumed that beads of a similar shape and colour were produced mainly in the 12th and 13th centuries (Wajda 2014, 66-67).

One bead was made by winding highly transparent lead silicate glass with a light yellow colour (Figs. 8: 14; 9: 5). It is barrel-shaped, with a diameter of 1.35 cm and a height of 1.5 cm. Such large specimens of beads of this type are not known from this region. A slightly smaller barrel-shaped bead was found at Krupice Site 1 (Dzik 2015b, plate XVIII: 23). Beads made of glass with a similar colour, but of spherical shape, are known from the cemetery at Suraz Site 2 (Bieńkowska 2005a, plate VII: 5).

In addition, one half of an opaque black glass bead of a spherical shape, with a diameter of about 1.3 cm and a height of 0.8-0.9 cm, was found in the grave (Figs. 8: 10; 9: 4). It is decorated with narrow strips of opaque white glass, forming loops embedded in its core. The bead was made of lead silicate glass that was probably stained with iron oxide, while the glass of the decoration was stained with tin oxide (Ginter 2020). Beads of this type are believed to be made by a sintering method, but this has not been confirmed sufficiently (*cf.* Wajda 2016). Similar specimens were found at two nearby barrow cemeteries – at Leśnictwo Przechody Site 10 (Olczak *et al.* 2019, figs. 5.13: 14-17) and in the Ładzka Forest (Walicka 1958, fig. 2). Outside the Białowieża Forest, beads with similar ornaments were discovered, for example, at cemeteries at Krupice Site 1 (Dzik 2015, plate XVIII: 20), Rogawka Site 1 (Dzik 2016, figs. 17: 2; 18: 5, 6), Rybałty Site 1 (Rauhut and Długopolska 1975, 352, plate III: p, r, s) and Świętek-Strumiany Site 3 (Jaskanis 2008, fig. 49: VI/N). They are usually dated to the 11<sup>th</sup>-12<sup>th</sup> centuries (Kuzina 2016, fig. 1: b, c; Pankiewicz *et al.* 2017, table 1).

## Ceramics

Two groups of Early Medieval pottery were distinguished, related to various phases of the site's occupation: vessels turned on their whole surface on a potter's wheel, which are associated with the cemetery and vessels finished on the wheel only in their upper parts that can be connected to the older settlement. Both vessel types were made of ferruginous clays, probably obtained from local glacial deposits. The chemical analysis of the pottery samples indicates a clear homogeneity of the clays used during both periods. All the samples are characterized by a high content of iron trioxide and a low content of calcium oxide (Olczak 2018).

The first group of ceramics include two reconstructed pots discovered at the bottom of the eastern side pit (feature 8) and 16 fragments of other vessels, which were also found in the mentioned pit (4 fragments), along with specimens from both the layers of the mound (3 fragments), the buried soil (2 fragments), the robbery pit (4 fragment), and from the modern humus (3 fragments). The pots both have an S-shaped form and everted rims, and are decorated with incised horizontal grooves. The better preserved of them has a height of 21.7-22.0 cm, with a rim 21.6 cm in diameter and a base 10.6-11.0 cm in diameter (Figs. 11; 12). Its base is concave, with a ballast of coarse-grained crushed stone. The pot was made of clay tempered with medium-grained (up to 0.2 cm) crushed stone, probably granite. The surface colour of the pot has changed as a result of secondary burning – it is orange on the inside and spotty on the outside, with soot stains. The second vessel, less well pre-



**Fig. 10.** Białowieża Forest, Leśnictwo Postołowo Site 11. Barrow no. 3 during exploration. The row of cobbles (layer 12) in the eastern side pit (feature 8). Photo by H. Olczak

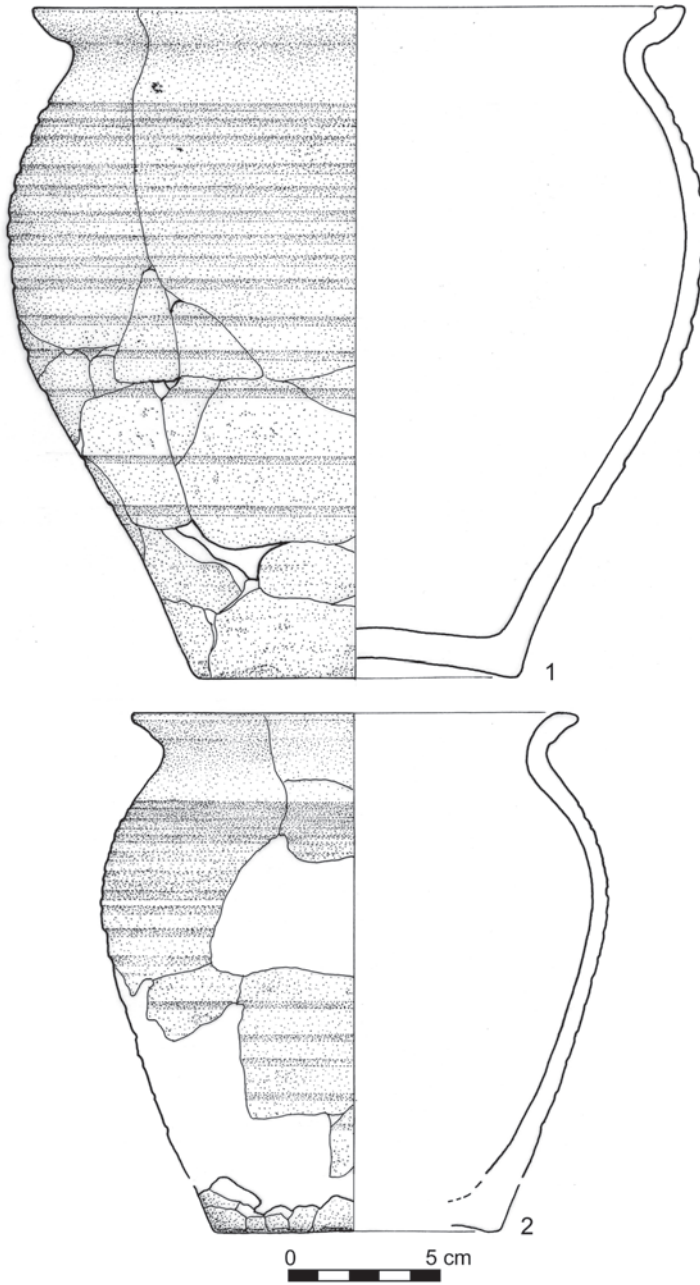


Fig. 11. Białowieża Forest, Leśnictwo Postołowo Site 11.  
Pottery vessels found at the bottom of the eastern side pit (feature 8) of barrow no. 3.  
Illustrated by G. Nowakowska and H. Olczak

served, has a height of about 16-17 cm, with a rim about 14.0-14.2 cm in diameter and a concave base about 9 cm in diameter (Fig. 11: 2). The vessel's external surface is spotted with soot stains, and its internal surface shows traces of probably secondary burning. The pot was made of clay tempered with medium-sized crushed stone (up to 0.2 cm).

Other ceramic finds associated with this phase are small and eroded pottery pieces, mainly body sherds. Among them are a fragment of lid with a diameter of about 12 cm (Fig. 13: 7), a rim deriving probably from a vessel with a cylindrical neck, and a flat base with a diameter of about 6 cm. The lid and a few body fragments are decorated with incised horizontal grooves (Figs. 13: 6, 7), while another fragment is decorated with grooves and a wavy line (Fig. 13: 8). The vessels were made of clay tempered with fine and medium-



**Fig. 12.** Białowieża Forest, Leśnictwo Postołowo Site 11.  
One of the vessels found at the bottom of the eastern side pit (feature 8) of barrow no. 3 after reconstruction.  
Photo by M. Osiadacz



Fig. 13. Białowieża Forest, Leśnictwo Postołowo Site 11.

Selection of handmade and partly turned pottery (1-5) and wholly turned pottery (6-8):

1 – side pit 8, layer 9; 2 – layer 10; 3 – robbery pit 23, layer 22; 4, 5 – from the field survey;

6, 7 – modern humus (layer 1); 8 – side pit 8, layer 9/1.

Illustrated by G. Nowakowska and H. Olczak

grained crushed stone (up to 0.2 cm). The thickness of their walls ranges from 0.5 to 1.3 cm.

These vessels can be dated from the second half of the 11th century to the beginning of the 13th century. In terms of technique, as well as of shapes and decoration, they are similar to pottery found at many cemeteries of the Białowieża Forest and of the Leśna River basin in western Belarus. However, in contrast to the above-described pots, most vessels from graves in these areas were of small size, with a diameter and height no bigger than a few or a dozen or so centimetres (Götze 1929, plate 14; Walicka 1958, fig. 1; Korobush-



kina 1993, figs. 17: 6, 10, 11; Krasnodębski *et al.* 2005, figs. 8; 11: a; Olczak *et al.* 2019, figs. 5.6: 6-8; 5.13: 7, 18). Pots similar in size to the ones from the side pit 8 were found, for example, at the flat cemetery at Zbucz Site 1 (Olczak *et al.* 2019, fig. 5.9: 10) and in one of the barrows in Trostyanitsa in the Leśna River basin (Korobushkina 1993, 55, fig. 17: 17). Taking into account finds originating from settlements, similar pottery was registered at nearby sites Leśnictwo Przechody Site 6 and Leśnictwo Teremiski Sites 3 and 5 (Olczak 2016a; 2016b), as well as in the region of the western and north-western Kievan Rus' (Lysenko 1985, figs. 232: 4, 5; Malevskaia-Malevich 2005, figs. 11: 2; 14: 2; 38: 15; 39: 20; 48: 1). Particularly noteworthy is a fragment of the lid, because in the Middle Bug River basin these items are discovered very rarely. A fragment of an identical lid was found at the neighbouring settlement at Leśnictwo Postołowo Site 6 (materials from the IAE PAS research). Very similar lids are known from the urban centres of the north-western Kievan Rus', for example from Navahrudak (Malevskaia-Malevich 2005, figs. 25: 5, 7).

In addition, 17 fragments of partly turned vessels were discovered, including 3 rims, 1 base, and 13 body sherds. They were found mainly on the site's surface (7 fragments), but also in both layers of the mound (4 fragments), in the pit 8 (3 fragments), in the robbery pit (2 fragments), and in the buried soil (1 fragment). The vessels were hand made using the coiling technique and then turned on the potter's wheel, probably in their upper and middle parts. The clay was tempered with a coarse-grained or, less frequently, medium-grained crushed stone, probably granite, with an average granulation of about 0.2-0.3 cm. The wall thickness of the vessels ranged from 0.8 to 1.4 cm. Two rims of probably S-shaped pots (Figs 13: 3, 4), a secondarily burned rim, which could be a plate fragment, and a slightly concave base with a large amount of crushed stone ballast are worth mentioning. The vessels were decorated with incised horizontal grooves and with wavy lines (Figs 13: 1, 2, 5). Due to the technique and stylistic features, this pottery can be dated from the second half of the 8th century to the beginning or the middle of the 10th century. Similar vessels were found at several settlements located in the Białowieża Forest, for example at Leśnictwo Postołowo Site 6 (Krasnodębski and Olczak 2018, 40-43), Leśnictwo Przechody Site 6 (Olczak 2016b) and Leśnictwo Nowe Site 1 (Krasnodębski and Olczak 2006a, 76). They were also discovered in one of the barrows at the cemetery at Leśnictwo Teremiski Site 2 (Krasnodębski and Olczak 2006b; Krasnodębski *et al.* 2011, 153-155).

## CHRONOLOGY OF THE BURIAL

Two radiocarbon analyses have been done to determine the burial's dating. Dating the plank unearthed in the mound gave a result of 920±30 BP (Poznań Radiocarbon Laboratory, Poz-99167). The calibrated age of this sample is 1028-1184 AD (probability 95.4%) or 1045-1098 AD and 1120-1157 AD (probability 68.2%). In contrast, a radiocarbon date of 620±30 BP (Poz-99066) was obtained for the charcoal from the side pit 8 (found under

the layer 12). The calibrated age of this sample lies within the range 1292-1401 AD (probability 95.4%) or 1299-1324 AD, 1346-1372 AD and 1378-1393 AD (probability 68.2%). The result of the plank's radiocarbon analysis is consistent with the dating of the finds. Based on this, the 12th century can be taken as the most probable dating of the burial. On the other hand, the result of dating the charcoal from the pit 8 is not compatible with the finds and is probably not related to the period when the mound was built. It proves, however, that the pit was not filled up immediately after the funeral, but that it was a long-lasting natural process.

## BURIAL RITE

Several features not typical to the Middle Bug River basin cemeteries have accumulated at the discussed site. The first distinguishing feature of the examined barrow is the burial's location within the mound, on a lower mound layer with a thickness of about 0.20-0.25 m. Burials of this kind are very rarely recorded in the Białowieża Forest. In this area, placing dead bodies beneath mounds, either on the ground surface or in burial pits, was the most widespread. A burial placed within a mound was perhaps discovered at the cemetery at Leśnictwo Przechody Site 10, but the information regarding it is not conclusive (barrow no. 13 according to Götze 1929, 529). On the Bielsk Plain, a burial of a similar type was found at Szczyty-Dzięciolowo Site 1 (Olczak and Krasnodębski 2019), and in the Drohiczyn Upland in Baciki Dalsze, Klukowo Site 1, and Korzeniówka Mała Site 2 (Dzik 2015c, 63). In the Belarussian region of Pobuże, burials placed within mounds constitute the smallest share among the examined features. They were registered at several cemeteries, for example in Hurki, Rataichicy, Svishchevo and Voiskaia (Korobushkina 1993, 26 and table 5).

Unusual for other inhumation burials of the region was the discovery of a burnt pine plank (or planks), which was lying on the top of the lower mound-layer on both sides of the skeleton, and probably under the skull as well. The remains of burnt planks or quadrangular enclosures are known from several older barrows with cremation burials located in the Białowieża Forest (Götze 1929, fig. 27; Krasnodębski *et al.* 2011, 153-155; Olczak *et al.* 2019, fig. 5.6: 1), but such constructions were not noticed in the later graves with inhumation burials. Two barrows with partial cremation from the Leśna River basin, in which large pieces of burnt wood were present next to the skeletons, are worth mentioning here. In grave no. 1 at the Lisovčicy cemetery, along the left side of the burial, there was a burnt log 2.4 m long, while smaller pieces of burnt wood were located at the head and feet of the dead (Korobushkina 1993, 46, 117-118). On the other hand, several pieces of burnt wood were laid on the skeleton's bones in barrow no. 25 at the cemetery in Khotinovo (Korobushkina 1993, 46, 126, and table 3). According to Tatiana N. Korobushkina, burials with partial cremation come from the period of the transition from pagan cremation to the

Christian rite of inhumation, when society did not want to completely abandon the use of fire in funeral rites (Korobushkina 1993, 45-46; cf. Musianowicz 1955, 272-273; Dzik 2012, 608-609). Another confirmation of the ancient funeral rites' survival in the Leśna River basin is the presence of a layer of ash and charcoal at the bases of many barrows, on which the bodies of the deceased were placed (Korobushkina 1993, 24-26). Evidence of fire usage in barrows with inhumation burials is also known from other Eastern Slavic regions, for example from the Neman River basin (Zvyaruga 2000, 87-88). This is particularly well-proven in the areas inhabited by the Radimichs, where frequent practices of placing dead bodies on extinguished hearths or wooden platforms have been reported (Soloveva 1963, 102; Sedov 1982, 154-155; Bogomolnikov 2004, 39). It seems that the discovery of the burnt plank in the discussed barrow may be just such a testimony to the reminiscence of old funerary customs during the period dominated by the skeletal rite. The plank could form part of an enclosure, while its unburned part did not survive, or it could be a remnant of the burnt-out hearth where the body of the deceased woman had been placed. Other evidence of fire usage in funeral rites is known from barrow no. 102 at the nearby cemetery at Leśnictwo Postołowo Site 3, in the burial pit of which traces of burnt wood, possibly from the lower part of a coffin, were recorded (Krasnodębski and Olczak 2016; Olczak *et al.* 2019, fig. 5.6: 2).

Another issue that needs to be discussed is the body orientation with its skull facing northeast. In the Białowieża Forest, a similar burial orientation was recorded only in grave no. 102 at the cemetery at Leśnictwo Postołowo Site 3 (Olczak *et al.* 2019, fig. 5.6: 2). The dead at barrows 90 and 91 at the same cemetery (Götze 1929, 538-539), as well as the ones in barrows 55, 63, and 65 at the cemetery at Leśnictwo Przechody Site 10 (graves nos. 13, 15, and 19 according to Götze 1929, 529-530), had their heads turned to the east. In addition, at the cemetery at Leśnictwo Postołowo Site 3, there were also cases of dead bodies placed with their heads facing southeast (barrow 62 and one of the burials in barrow 91, Götze 1929, 535-536, 539). In total, the eastern orientation in the Białowieża Forest, sometimes with a northern or southern deviation, has been noticed in about 40% of the examined burials, both male and female. Such a large proportion of graves with this orientation was not typical for the Middle Bug River basin, because the western orientation was the most common one in this area in the 11th-13th centuries (among others: Dzik 2015c, 59-63). The only exception in this respect is the flat-grave cemetery at Daniłowo Małe Site 1, where during the earlier phase, men were buried with their heads pointing east and women with their heads pointing west (Koperkiewicz 2003, 308-314; Olczak *et al.* 2019, 80). Also, in the area of Eastern Slavs from the beginning of the popularization of the inhumation burial, the western burial orientation of both sexes prevailed, with only a small share of other directions (see, *i.a.*, Sedov 1961, 103-105; Korobushkina 1993, 14-16, with further literature there). In the Leśna River basin, an eastern or south-eastern burial orientation was noticed at five cemeteries (Hurki, Lyubashki, Rataichicy, Svishchevo and Voiskaia), but it was a distinct minority in that area (Korobushkina 1993, 14-15, 101, tables

1, 2, 5). In the Upper Neman River basin, barrows with an eastern orientation of dead bodies were also rarely recorded (Jaskanis 1962, 357; Zvyaruga 2000, 87, 104). The greatest number of eastern-oriented burials in Eastern Slavdom were noticed in the Upper Dnieper basin, in the region inhabited by historical Radimichs, but few of them were women's burials (Soloveva 1963; Bogomolnikov 2004, 35-37). Valentin Sedov explained this way of burying the dead in some areas of the northern Kievan Rus' as a result of the influence of the Balts, who had lived there before the Slavs (Sedov 1961; 1982, 120, 155). In reference to the cemeteries of the Leśna River basin, this view was questioned, among other reasons, due to the fully Slavic character of the grave goods (Korobushkina 1993, 14-17, 101-102). In the case of the Białowieża Forest, there are also no convincing arguments to explain this phenomenon. The insufficient state of research in the areas located to the north of the Upper Narew River and in the Upper Neman River basin does not allow for the confirmation nor the rejection of the hypothesis of possible Balt influences. From among several possible interpretations regarding the origin of a specific microregion in the Narewka River basin with a very large share of eastern-oriented burials, a thesis about the survival of customs from before the adoption of the Christian funeral rite in this region seems to be the most convincing. This thesis is plausible when one considers the distribution of the main strongholds and, therefore, the ecclesiastical centres in the 12th-13th centuries in the Mazovian-Rus' borderland and their large distance from the discussed area.

Another feature distinguishing the discussed burial mounds is the presence of settings of kerbstones, arranged at their bases (barrow nos. 2, 4, 5, and probably 1), or less often in their upper part (barrow no. 3). It cannot be ruled out that the examined barrow had been covered with a stone mantle that was completely destroyed later. This is indicated by remnants of a pavement on the mound's northern edge, as well as the presence of cobblestones in the side pit 8 and in the robbery pit. However, the small number of stones found lead to the assumption that the pavement could have covered only some part of the mound's surface. Stone mantles were not an indispensable feature of burial mounds with kerbstones, because in the cemeteries of the Leśna River basin they were only found at some of them (Korobushkina 1993, tables 1, 2, 5). In the case of some barrows in this region, pavements covering some parts of the mound's surface, or individual stones placed in their centres, were also recorded (Korobushkina 1993, 16).

In the Białowieża and Ładzka Forests, burial mounds surrounded by circular or rectangular settings of kerbstones are present at several sites. Alfred Götze described two barrows with square settings situated at inhumation cemeteries at Leśnictwo Przechody Sites 9 and 10 (Götze 1929, 515-518, 528-531). He also examined two mounds with quadrangular settings of small kerbstones, located at Leśnictwo Przechody Site 1, but he did not discover burials in them (Götze 1929, 526-528). Large stones were also preserved on slopes of the mounds or at their bases at Site 2 in Leśnictwo Krynica, but no human remains were found in the examined barrow (Wawrzenuk 2017, 207-213). The next mounds with kerb-

stones are located at Leśnictwo Jelonka Site 1 (Götze 1929, 518) and Białowieża National Park Sites 22 and 30 (Górska 1976, 132, fig. 17; Krasnodębski and Olczak 2018, 22-23, fig. 13), but their chronology is not clear. Beyond the Białowieża Forest, the inhumation burial in a barrow that was probably surrounded by kerbstones was examined at the cemetery at Szczyty-Dzięciołowo Site 1 (Olczak and Krasnodębski 2019). In the Drohiczyn Upland, inhumation burials in barrows with settings of kerbstones were noticed at Baciki Dalsze (Zoll-Adamikowa 1975, fig. 15; Dzik 2015c, table 6), Czarna Cerkiewna Site 1 (Chilmon 1974, 310, 313-314), and probably in Kamianki (Musianowicz 1960, no. 123); similar constructions are also known from cemeteries in Łuzki (documentation at the State Archaeological Museum in Warsaw) and Czekanów (Zawadzka-Antosik 1982, 27) in the Siedlce Upland. In addition to barrows with stone constructions in the Białowieża Forest, there are also mounds consisting only of sand, which constitute the vast majority of the examined features. The largest group of inhumation barrows of the latter type is located only about 400 m from the discussed cemetery, at the site Leśnictwo Postołowo 3 (Götze 1929, 535-540; Olczak *et al.* 2019, 58-61). Mounds without stone settings are the only ones known from the older period (until the turn of the 10th and 11th centuries) from the area of the Białowieża Forest (Götze 1929, 531-535, 541; Krasnodębski *et al.* 2011, 150-155; Olczak *et al.* 2019, 57-58). It can therefore be assumed that burial mounds with settings of kerbstones appeared in the Narewka River basin as a result of external influences. The Leśna River and Upper Neman River basins, where barrows with kerbstones were a typical grave form in the younger period of the Early Middle Ages (Salewicz 1937, 166-169; Jaskanis 1962, figs. 2, 5; Korobushkina 1993, 11-17; Zvyaruga 2000, 104-106; Yurkavets 2006, 128, figs. 2: 1, 2), should be taken into account as potential areas from which this construction idea has been taken.

Side pits flanking the described burial mound on the east and west were most likely created as a result of taking soil for the mound's construction, as was the case of other barrows of this type. It is probable that the investigated pit had also a ritual function, as evidenced by the pottery found at its bottom. Traces of secondary burning and soot stains visible on the surfaces of the vessels show that they had probably been used in fire-related rituals. However, it cannot be excluded that these activities took place elsewhere, because no large charcoal fragments were found in the pit. One can also not exclude that the pots had originally been placed on the top of the barrow, from where they tumbled to the bottom of the pit. Regardless of which hypothesis one considers to be more likely, there are very few analogies in the area of the Narewka River basin for either the location of the vessels or their large size. The inhumation burials in this area are mainly known for small pots, deposited at the head or feet of the dead (Olczak and Wójcik 2019, 155-156). Perhaps the pottery fragments from Leśnictwo Krynica Site 2, which were found at the top of the mound, next to one of the large stones, could be related to similar rituals (Wawrzyniuk 2017, 209-210).

## CONCLUSIONS

The Szczekotowo Range complex, which includes the cemetery in question, is one of the largest and best-recognized clusters of archaeological sites in the Polish part of the Białowieża Forest. A dozen or so groups of earthen mounds and at least several settlements are located in this area. Some of them have been excavated, while drilling and field surveys have been conducted at others. The first traces of human activity in the Szczekotowo Range can be dated to the late Mesolithic or the Neolithic, whereas intensive settlement activity began there around the turn of the Common Era and, with some periods of inactivity, lasted until the end of the 18th century (Krasnodębski and Olczak 2018, 38-43; Olczak *et al.* 2019, 57-61). An important factor attracting successive groups of settlers to this place was undoubtedly its convenient location on fertile soils in the Łutownia River valley, as well as the fact that in the first centuries of the Common Era, a large, partly deforested clearing had probably been created here, which might have been occupied more easily in subsequent periods than other, previously uninhabited areas of the Białowieża Forest.

The excavation at Leśnictwo Postołowo Site 11 brought further information about settlement in the Szczekotowo Range. New finds were collected confirming the occupation of these areas in the Neolithic and probably in the Pre-Roman period (Olczak 2018). Knowledge about the extent and dating of the settlement from the older phase of the Early Middle Ages, which spread along the left bank of the Łutownia River, has also been expanded. Above all, however, the obtained results contributed to the enrichment of our knowledge regarding Early Medieval funeral rites of the Mazovian-Rus' borderland. Since the research of Alfred Götze, the Białowieża Forest has been recognized as a region with an exceptionally high concentration of Early Medieval burial mounds (Götze 1929; Górska 1976; Faliński 1980; Oszmiański 1996; Bieńkowska 2005b, 242). Although in the last dozen or so years it has been shown that a large number of earthen mounds in this area probably had other functions (Krasnodębski and Olczak 2018, 17-29, further literature there), it is nevertheless undeniable that barrow burials prevailed here during both phases of the Early Middle Ages. Thanks to the excavation at the discussed cemetery, we have not only obtained confirmation of the region's links with Eastern Slavdom, but we have also unearthed an inhumation burial in a barrow, surrounded by a setting of kerbstones, for the first time in the Białowieża Forest. This discovery sheds new light on the other mounds with kerbstones located in this area, which were not previously excavated or where no human bones were discovered. The presence of quite a large group of such barrows suggests a close relationship between the regions of the Narewka River basin and the Leśna River and/or the Upper Neman River basins. It seems that the cemetery at Leśnictwo Postołowo Site 11 was located on the western edge of the zone of burial mounds with settings of kerbstones, while at the same time, the shape of three smaller barrows resembles the form of the flat graves with stone constructions of Mazovian type, which may suggest some influences of the burial

rites of Western Slavs. The location of the cemetery is interesting – just a few hundred meters from the similarly dated necropolis at Leśnictwo Postołowo Site 3, but on the opposite riverbank. Another intriguing issue is the remoteness of one of the barrows (no. 1) from the others, which could indicate that it belongs to a separate cemetery or that for some reason, the person who was buried there had been isolated from others.

The age of the embankments on top of which four burial mounds in the eastern part of the site were situated is still unresolved. They occupy a considerable area on both banks of the Łutownia River, clearly distinguished by a higher position in relation to the surroundings. Similar earthworks, sometimes interpreted as old, so-called Celtic field boundaries, are known from many places in the Białowieża Forest (Krasnodębski and Olczak 2018, 29-30 and fig. 19). The location of the barrows on top of these earthworks, which were undoubtedly more clearly visible at the time when the cemetery was used than they are now, proves that at least some of those earthworks or boundaries were constructed prior to the younger phase of the Early Middle Ages. An issue requiring further research is the chronological relationship between these structures and the prehistoric and Early Medieval settlements located in this area.

## References

- Bieńkowska K. (Chilmon K.). 1974. Badania wykopaliskowe wczesnośredniowiecznych cmentarzysk kurhanowych w Czarnej Wielkiej i Czarnej Cerkiewnej, pow. Siemiatycze. *Sprawozdania Archeologiczne* 26, 301-316.
- Bieńkowska K. 2005a. Cmentarzysko wczesnośredniowieczne w Surazżu, woj. podlaskie. *Podlaskie Zeszyty Archeologiczne* 1, 121-166.
- Bieńkowska K. 2005b. Przegląd badań archeologicznych prowadzonych na wczesnośredniowiecznych stanowiskach Podlasia w ostatnich 20 latach. In M. Dulnicz (ed.), *Problemy przeszłości Mazowsza i Podlasia (= Archeologia Mazowsza i Podlasia. Studia i Materiały 3)*. Warszawa: Instytut Archeologii i Etnologii PAN, 241-247.
- Bogomolnikov V. V. 2004. *Radimichi (po materiałom kurhanov X-XII vv.)*. Homel: Ministerstwo obrazovaniya Respubliki Belarus.
- Chilmon K. (see Bieńkowska K.)
- Dzik M. 2012. Bi-ritual burials in the central Bug river basin during the Middle Ages. In M. Salamon, M. Wołoszyn, A. Musin, P. Špehar, M. Hardt, M. P. Kruk and A. Sulikowska-Gąska (eds), *Rome, Constantinople and Newly-Converted Europe. Archaeological and Historical Evidence 1 (= U źródeł Europy Środkowo-wschodniej/Frühzeit Ostmitteleuropas 1,1)*. Kraków, Leipzig, Rzeszów, Warszawa: Geisteswissenschaftliches Zentrum Geschichte und Kultur Ostmitteleuropas, Instytut Archeologii i Etnologii PAN, Instytut Archeologii Uniwersytetu Rzeszowskiego, 603-612.
- Dzik M. 2015a. Early medieval stone barrows in the area in the Bug and the Upper Narew Rivers. *Archaeologia Polona* 48(2010), 121-138.

- Dzik M. 2015b. *Przemiany zwyczajów pogrzebowych w międzyrzeczu Bugu i górnej Narwi (XI-XV w.)* 1. Rzeszów: Fundacja Rzeszowskiego Ośrodka Archeologicznego, Instytut Archeologii Uniwersytetu Rzeszowskiego, Państwowe Muzeum Archeologiczne w Warszawie, Muzeum Podlaskie w Białymstoku.
- Dzik M. 2015c. *Przemiany zwyczajów pogrzebowych w międzyrzeczu Bugu i górnej Narwi (XI-XV w.)* 2. Rzeszów: Fundacja Rzeszowskiego Ośrodka Archeologicznego, Instytut Archeologii Uniwersytetu Rzeszowskiego, Państwowe Muzeum Archeologiczne w Warszawie, Muzeum Podlaskie w Białymstoku.
- Dzik M. 2016. Średniowieczne cmentarzysko w Rogawce w pow. siemiatyckim w świetle badań Siergieja Dubinskiego w 1910 roku. *Światowit* 10(51) (2012), fasc. B, 205-236.
- Faliński J. B. 1980. Rozmieszczenie kurhanów na tle zróżnicowania środowisk leśnych w Puszczy Białowieskiej i problem ich ochrony. In D. Jaskanis (ed.), *Zabytek archeologiczny i środowisko. Problemy zagospodarowania obiektów archeologicznych w aglomeracjach miejskich i kompleksach leśnych*. Warszawa: Państwowe Wydawnictwo Naukowe, 97-140.
- Ginter A. 2020. *Opracowanie wyników analiz laboratoryjnych paciorków szklanych pozyskanych w trakcie badań archeologicznych na st. Leśnictwo Postołowo 11 (AZP 45-91/17), gm. Hajnówka*. Unpublished typewritten manuscript in Institute of Archaeology of the Cardinal Stefan Wyszyński University in Warsaw.
- Górska I. 1976. Badania archeologiczne w Puszczy Białowieskiej. *Archeologia Polski* 21(1), 109-134.
- Götze A. 1929. Archäologische Untersuchungen im Urwalde von Bialowies. In E. Stechow (ed.), *Beiträge zur Natur- und Kulturgeschichte Lithauens und angrenzender Gebiete (= Abhandlungen d. math.-naturw. Abteilung der Bayer 14. Supplement)*. München: Verlag der Bayerischen Akademie der Wissenschaften in Kommission des Verlags R. Oldenburg München, 511-550.
- Jaskanis D. 1962. Materiały z badań wczesnośredniowiecznego cmentarzyska w miejscowości Podroś koło Wołkowyska w BSRR. *Rocznik Białostocki* 3, 337-363.
- Jaskanis D. 1966. Materiały z badań wczesnośredniowiecznego cmentarzyska z grobami ciałopalnymi w okolicy Kuraszewa w pow. Hajnówka. *Rocznik Białostocki* 6, 241-265.
- Jaskanis D. 2008. *Świątek. Wczesnośredniowieczny zespół osadniczy na północno-wschodnim Mazowszu*. Warszawa: Stowarzyszenie Naukowe Archeologów Polskich – Oddział w Warszawie, Muzeum Podlaskie w Białymstoku.
- Koperkiewicz A. 2003. Związek płci z orientacją grobu we wczesnym średniowieczu na przykładzie cmentarzyska w Daniłowie Małym, w woj. podlaskim. In W. Dzieduszycki and J. Wrzesiński (ed.), *Kobieta – śmierć – mężczyzna (= Funeralia Lednickie 5)*. Poznań: Stowarzyszenie Naukowe Archeologów Polskich, Oddział w Poznaniu, 307-324.
- Korobushkina T. N. 1993. *Kurgany beloruskiego Pobuzhia X–XIII vv*. Minsk: Akademiia Nauk Belarusi, Institut Istorii.
- Krasnodębski D. and Olczak H. 2006a. Badania archeologiczne przeprowadzone na uroczysku Stara Białowieża w oddz. 367A Puszczy Białowieskiej (AZP 45-92). *Podlaskie Zeszyty Archeologiczne* 2, 74-79.



- Krasnodębski D. and Olczak H. 2006b. Badania archeologiczne w Puszczy Białowieskiej na stanowisku Teremiski-Dąbrowa, oddz. 338 A i B (AZP 45-92). *Podlaskie Zeszyty Archeologiczne* 2, 80-83.
- Krasnodębski D. and Olczak H. 2016. Nekropole Puszczy Białowieskiej: dwa cmentarzyska kurhanowe na terenie Uroczyska Szczekotowo. In A. Buko (ed.), *Sprawozdanie z realizacji grantu MNiSW Początki chrześcijaństwa na pograniczu mazowiecko-ruskim (11H 12 0330 81, kierownik projektu prof. dr hab. Andrzej Buko)*. Unpublished typewritten manuscript in Institute of Archaeology and Ethnology PAS in Warsaw.
- Krasnodębski D. and Olczak H. 2018. Puszcza Białowieska jako przykład badań archeologicznych na obszarach leśnych – wyniki i problemy przeprowadzonej w 2016 r. inwentaryzacji dziedzictwa kulturowego. *Podlaskie Zeszyty Archeologiczne* 3 (2017), 5-61.
- Krasnodębski D., Olczak H. and Samojlik T. 2011. Wczesnośredniowieczne cmentarzyska Puszczy Białowieskiej. In S. Cygan, M. Glinianowicz and P. N. Kotowicz (eds), „*In silvis, campis... et urbe*”. *Średniowieczny obrządek pogrzebowy na pograniczu polsko-ruskim* (= *Collectio Archaeologica Ressoviensis* 14). Rzeszów, Sanok: Fundacja Rzeszowskiego Ośrodka Archeologicznego, Instytut Archeologii Uniwersytetu Rzeszowskiego, Muzeum Historyczne w Sanoku, Muzeum Budownictwa Ludowego w Sanoku, 145-174.
- Krasnodębski D., Samojlik T., Olczak H. and Jędrzejewska B. 2005. Early Mediaeval cemetery in the Zamczysko Range, Białowieża Primeval Forest. *Sprawozdania Archeologiczne* 57, 555-583.
- Kuzina I. 2016. Glass beads in the northern regions of Rus': issues of trade routes and chronology. *Archeologia Polski* 61, 219-240.
- Lysenko P. F. 1985. *Bereste*. Minsk: Akademiia Nauk Belorusskoi SSR, Institut Istorii.
- Malevskaia-Malevich M. V. 2005. *Keramika zapadnorusskikh gorodov X-XIII vv.* (= *Institut Istorii Materialnoy Kultury. Trudy* 17). Sankt-Peterburg: Rossiyskaya Akademiya Nauk, Institut Istorii Materialnoy Kultury.
- Musianowicz K. 1955. Przyczynki do osadnictwa mazowieckiego na Podlasiu w XII-XIII wieku. *Światowit* 21, 247-275.
- Musianowicz K. 1960. Granica mazowiecko-drehowicka na Podlasiu we wczesnym średniowieczu. *Materiały Wczesnośredniowieczne* 5, 187-230.
- Olczak H. 2016a. *Wstępne sprawozdanie z badań wykopaliskowych prowadzonych na stanowisku Leśnictwo Teremiski st. 5 (AZP 45-92/5), Puszcza Białowieska, Nadleśnictwo Białowieża, oddz. 339A, woj. podlaskie (nr pozwolenia 26/A/2016)*. Unpublished typewritten manuscript in Regional Office for the Protection of Monuments in Białystok.
- Olczak H. 2016b. *Wstępne sprawozdanie z badań wykopaliskowych prowadzonych w oddz. 123C Puszczy Białowieskiej, Leśnictwo Przechody, Nadleśnictwo Browsk, woj. podlaskie (nr pozwolenia 27/A/2016)*. Unpublished typewritten manuscript in Regional Office for the Protection of Monuments in Białystok.
- Olczak H. 2018. *Ceramika naczyniowa ze stanowiska Leśnictwo Postołowo 11, Puszcza Białowieska, oddz. 213D/214C*. Unpublished typewritten manuscript in Institute of Archaeology of the Cardinal Stefan Wyszyński University in Warsaw.

- Olczak H. and Krasnodębski D. 2019. The cemetery in Szczyty-Dzięciolowo, Bielsk Podlaski district, as an example of grave form diversity in the middle Bug river basin in the 11th-13th centuries. *Sprawozdania Archeologiczne* 71, 407-455.
- Olczak H., Krasnodębski D. and Bieńkowska K. 2019. Elementy wczesnośredniowiecznych rytuałów funeralnych i kultowych w dorzeczu górnej Narwi w IX-XIII w.: nowe badania i analizy wcześniej pozyskanych źródeł. In A. Buko (ed.), *Początki chrześcijaństwa na pograniczu mazowiecko-ruskim w świetle wyników badań wybranych cmentarzysk*. Warszawa: Instytut Archeologii i Etnologii PAN, 55-99.
- Olczak H. and Wójcik A. 2019. Ceramika naczyniowa z wczesnośredniowiecznych cmentarzysk dorzecza środkowego Bugu jako wskaźnik tradycji regionalnych i przemian kulturowych. In A. Buko (ed.), *Początki chrześcijaństwa na pograniczu mazowiecko-ruskim w świetle wyników badań wybranych cmentarzysk*. Warszawa: Instytut Archeologii i Etnologii PAN, 153-168.
- Oszmiański M. 1996. *Inwentaryzacja kurhanów na terenie Puszczy Białowieskiej*. Unpublished typewritten manuscript in Regional Office for the Protection of Monuments in Białystok.
- Pankiewicz A., Siemianowska S. and Sadowski K. 2017. *Wczesnośredniowieczna biżuteria szklana z głównych ośrodków grodowych Śląska (Wrocław, Opole, Niemcza) (= In pago Silensi. Wrocławskie Studia Wczesnośredniowieczne 3)*. Wrocław: Uniwersytet Wrocławski, Instytut Archeologii.
- Rauhut L. and Długopolska L. 1975. Cmentarzysko z XII – XIII w. w obudowie kamiennej w Rybałtach, pow. Siemiatycze. *Wiadomości Archeologiczne* 39(3), 339-372.
- Salewicz K. 1937. Nowe stanowiska przedhistoryczne w pow. brzeskim. (Z badań Państwowego Muzeum Archeologicznego w Warszawie). *Z Otchłani Wieków* 12(11-12), 166-170.
- Sedov V. V. 1961. Sledy vostochnobaltiyskogo pogrebalnogo obriada v kurganakh drevnei Rusi. *Sovetskaya Arkheologiya* 1961(2), 103-121.
- Sedov V. V. 1982. Vostochnye slaviane v VI-XIII vv. In B. A. Rybakov (ed.), *Arheologiya SSSR c drevneyshikh vremien do srednevekovia v 20 tomakh*. Moskva: Nauka.
- Soloveva G. F. 1963. K voprosu o vostochnoy orientirovke pogrebennykh v slavianskikh kurganakh XI-XIII vv. *Sovetskaya Arkheologiya* 1963(2), 95-106.
- Tomczyk J. 2018. *Raport analiz materiałów szkieletowych*. Unpublished typewritten manuscript in Institute of Archaeology of the Cardinal Stefan Wyszyński University in Warsaw.
- Wajda S. 2014. Wyroby szklane. In H. Karwowska (ed.), *Średniowieczne cmentarzysko w Czarnej Wielkiej stan. 1, woj. podlaskie (badania 1951-1978)* 2. Białystok: Muzeum Podlaskie w Białymstoku, 57-103.
- Wajda S. 2016. Paciorki szklane z cmentarzyska w Uroczysku Jelonka, z badań 2014 r. In A. Buko (ed.), *Sprawozdanie z realizacji grantu MNiSW Początki chrześcijaństwa na pograniczu mazowiecko-ruskim (11H 12 0330 81, kierownik projektu prof. dr hab. Andrzej Buko), Aneks 5.3.I*. Unpublished typewritten manuscript in Institute of Archaeology and Ethnology PAS in Warsaw.

- Walicka E. 1958. Wczesnośredniowieczne kurhany w Puszczy Lackiej pow. Bielsk Podlaski. *Wiadomości Archeologiczne* 25, 157-158.
- Wawrzeniuk J. 2017. Kurhany Puszczy Ładzkiej w perspektywie dotychczasowych badań archeologicznych. In J. Wysocki (ed.), *Konserwacja zapobiegawcza środowiska 4. Dziedzictwo kulturowe w lasach. (= Archaeologica Hereditas 8)*. Warszawa-Zielona Góra: Uniwersytet Kardynała Stefana Wyszyńskiego, Wydawnictwo Fundacji Archeologicznej, 201-213.
- Yurkavets Y. 2006. Pakhavalnyia pomniki w vakolitsakh h. Hrodna. In H. Karwowska and A. Andrzejewski (eds), *Stan badań archeologicznych na pograniczu polsko-białoruskim od wczesnego średniowiecza po czasy nowożytne*. Białystok: Muzeum Podlaskie w Białymstoku, 127-138.
- Zawadzka-Antosik B. 1982. Z problematyki pochówków dziecięcych odkrytych na cmentarzysku w Czekanowie, woj. siedleckie. *Wiadomości Archeologiczne* 47(1), 25-57.
- Zoll-Adamikowa H. 1975. *Wczesnośredniowieczne cmentarzyska ciałopalne Słowian na terenie Polski. Cz. I. Źródła*. Wrocław, Warszawa, Kraków, Gdańsk: Zakład Narodowy imienia Ossolińskich, Wydawnictwo Polskiej Akademii Nauk.
- Zvyaruga Y. G. 2000. Naselnitstva Panyamonnya. In P. F. Lysenka (ed.), *Arkhealogiya Belarusi 3. Syarednevyakovy peryad (IX-XIII stst.)*. Minsk: Natsyanalnaya Akademiya Navuk Belarusi. Instytut Gistoryi, Belaruskaya Navuka, 84-108.

