HORSES FROM TWO BURIALS IN SAMLAND AND NATANGEN (SECOND CENTURY, KALININGRADSKAIA PROVINCE, RUSSIA)

ANDREI V. ZINOVIEV

Abstract

Single and double-horse burials of second century AD from Samland and Natangen (Kaliningrad region, Russia) are described. All horses were in the good riding age. They bear constitutional similarities with horses from later burials in Germany, Latvia, Lithuania and Scandinavia. Despite their small size, horses were used as riding and most likely were buried with proprietors as afterlife mediators or servants.

Key words: horse, burial, Roman time, age, constitution, Kaliningrad region.

Introduction

The practice of horse burial has been present elsewhere in continental Europe for about a thousand years prior to its first appearance in archaeological records in the area of Baltic tribes, in Sambia and Natangia in particular. It is known from Hallstatt period (800–600 BC) onwards (Gräslund 1980, p.48; Shenk 2002, p.3) and beautifully described in Homer's Iliada (Homer 1924, p.163ff). And if for Greek and Roman world we have rich written evidences on burial tradition and physical appearance of horses (see Hyland, 1990, p.189ff for further literature on the subject), such an information on Imperial outskirts and adjacent areas, populated by Celtic, Germanic and Slavic tribes is more than scarce (works by Caesar (100–44 BC), Strabo (63/64 BC – ca. AD 24), Ibn Fadhlan (tenth century), Peter von Duisburg (? – 1326) contain only hints of information). Thus, only archaeology can provide us with the main bulk of data on the subject.

Numerous works on horse burials, connected rituals and horse physical appearance, exist for the area of Baltic tribes and adjacent territories (Hollack 1908, pp.145-193; Heym 1938, pp.10-30; Müller-Wille 1970-1971, pp.119-248; Oexle 1984, pp.122-172; Amberger, Kokabi 1985, pp.257-280; Benecke 1985, p.197ff; 2002, pp.187-200; Daugnora 1994, p.12ff; 1996, p.14ff; 1997, p.7ff; Hyland 1994, pp.68-81; Ber-

Fig. 1. The location of Berezovka (Groß Ottenhagen) and Schosseinoe (former Dorf Warten, Kreis Königsberg) on the map of Kaliningrad region.

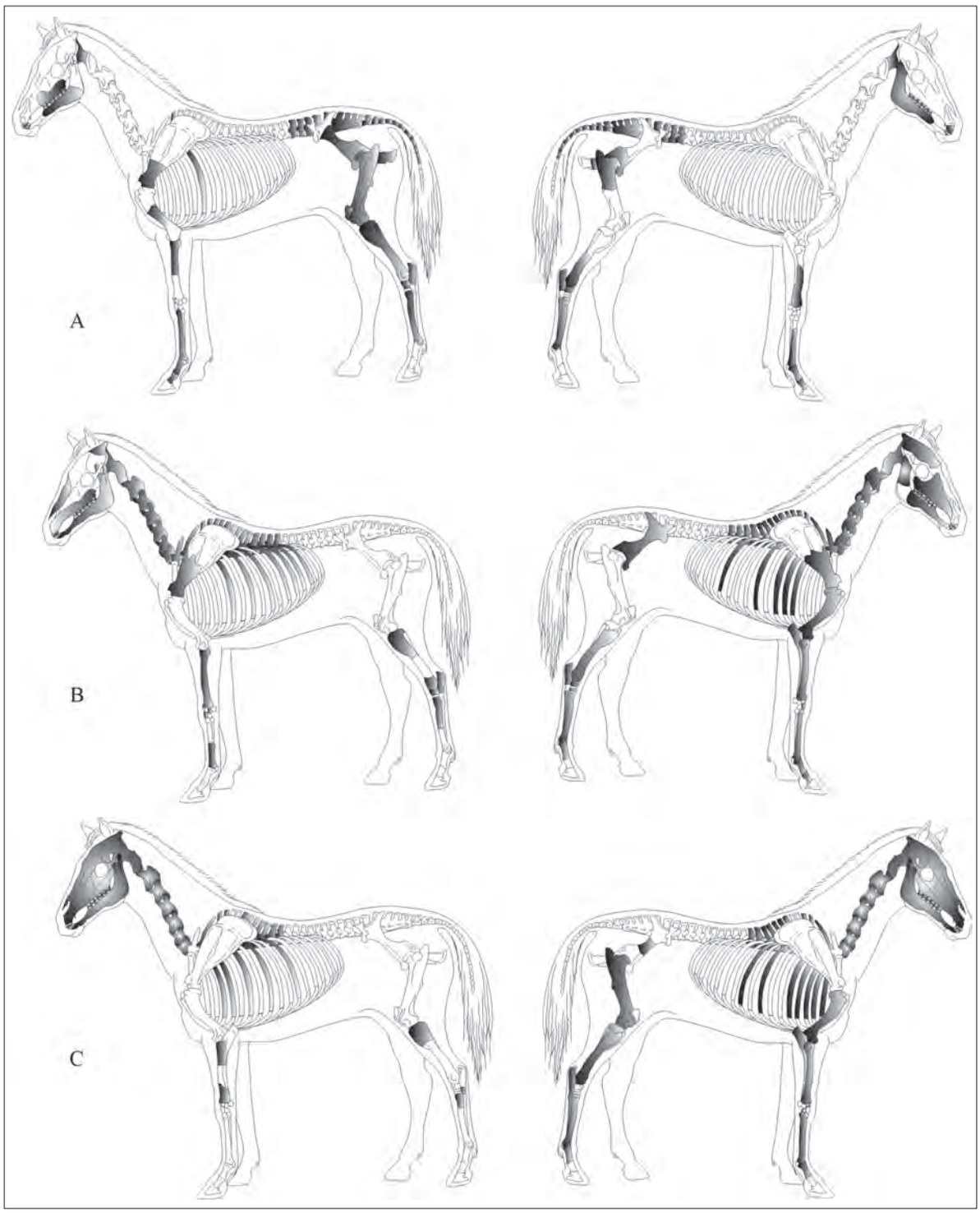

Fig. 2. Bones available for study (shown shaded): “northern skeleton” (A), “southern skeleton” (B) from Berezovka and skeleton from Schosseinoe (C).

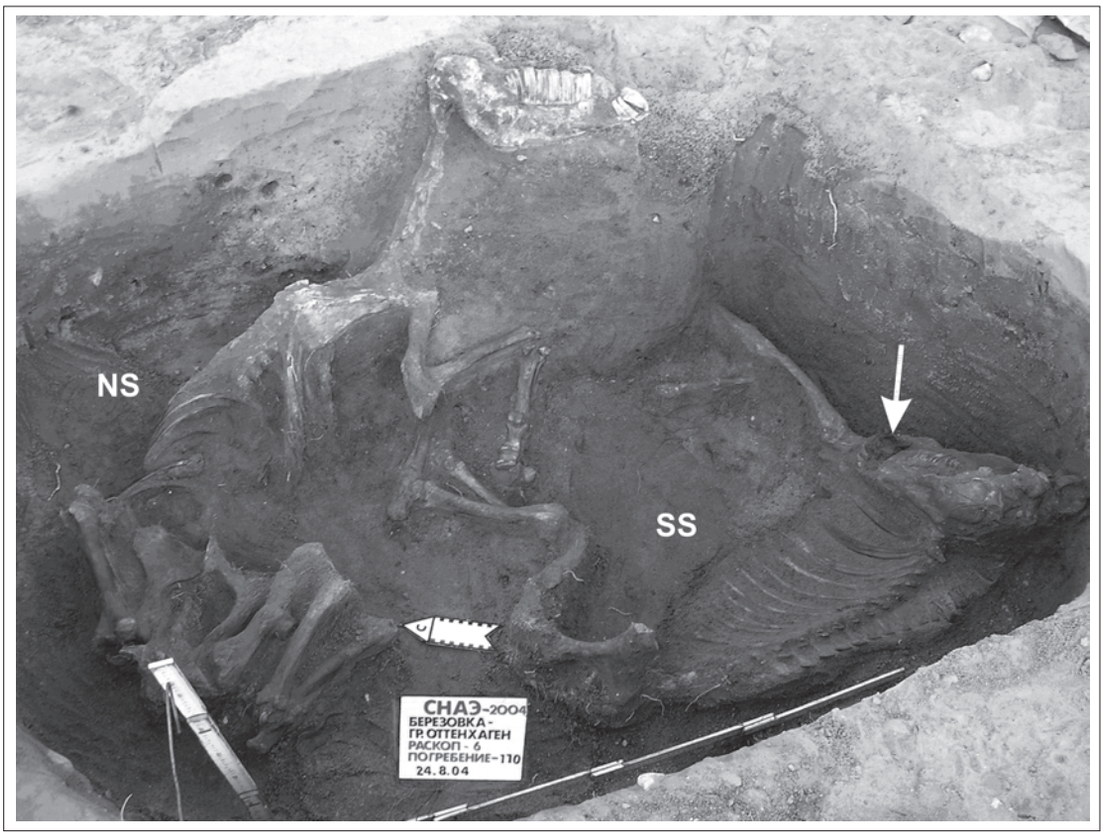

Fig. 3. Double burial from Berezovka (former Groß Ottenhagen): NS – "northern skeleton", SS – "southern skeleton". Arrow shows preserved metal elements of bridle (photograph by Skvortsov).

ta ius, Daugnora 2001, p.387ff; Shenk 2002, pp.3-83; von Babo 2004, pp.36-161; Kulakov 2005, p.273ff). Most of them are dealing with Viking period (eight - mid of eleventh century). Therefore, any information on horses and their burials of earlier times, especially on those at the beginning of AD, is of a great interest.

Materials and methods

Skeletons of three horses, uncovered by the crew of Samland-Natangen Archaeological Expedition of Russian Academy of Sciences led by K.N. Skvortsov, from two burials, have been investigated. Two skeletons of double burial had been unearthed in 2004 near settlement Berezovka (former Groß Ottenhagen); the third of a single burial has been discovered in 2007 near settlement Schosseinoe (former Dorf Warten, Kreis Königsberg) (Fig. 1). First two skeletons are dated back to the second half of second century AD, while the third comes from the first half of the same century.

Due to the poor condition of bones, coupled with problems of storage, only a handful of complete bones have been presented for our research (Fig. 2). This, however, was enough to characterize age, sex and stature of horses in question. Age has been determined by tooth wear, especially that of incisors (Levine 1982, p.91ff; Muylle, Lauwers 1999, p.634ff; da Silva *et al*. 2003, p.103ff). To prove the age determination we also used data on time of epiphyses and apophyses closure. Sex determination was mainly based on presence or absence of canines. However, for "southern horse" in double burial, dental row of which was not available for research in its entirety, morphological features of pelvis, such as shapes of *tuberculum pubicum dorsale* and *ramus acetabularis ossis pubis*, were taken into consideration. The withers height and constitution have been determined by methods of Vladimir Vitt (1952, p.172ff) and Veniamin Tsalkin (1971, p.178ff) (table). All measurements have been done according to Angela von den Driesch (1976, p.92 fig. 44a,b). Anatomical terms follow *Nomina Anatomica Veterinaria* (2005).

Results and Discussion

Double burial. Both skeletons were lying in an oval pit, approximately north-west – south-east oriented (Fig. 3) and covered with so-called 'stone pavement' above. Cremations of suggested slave and proprietor have been found nearby to the west. Horse skeleton from the southern part of pit (South skeleton – SS) belongs to the stallion of 3.5–4 years. Its withers height – 129–131 cm – attributes the stallion to the Vitt's category "undersized". Diaphysis index (14.40) characterizes it

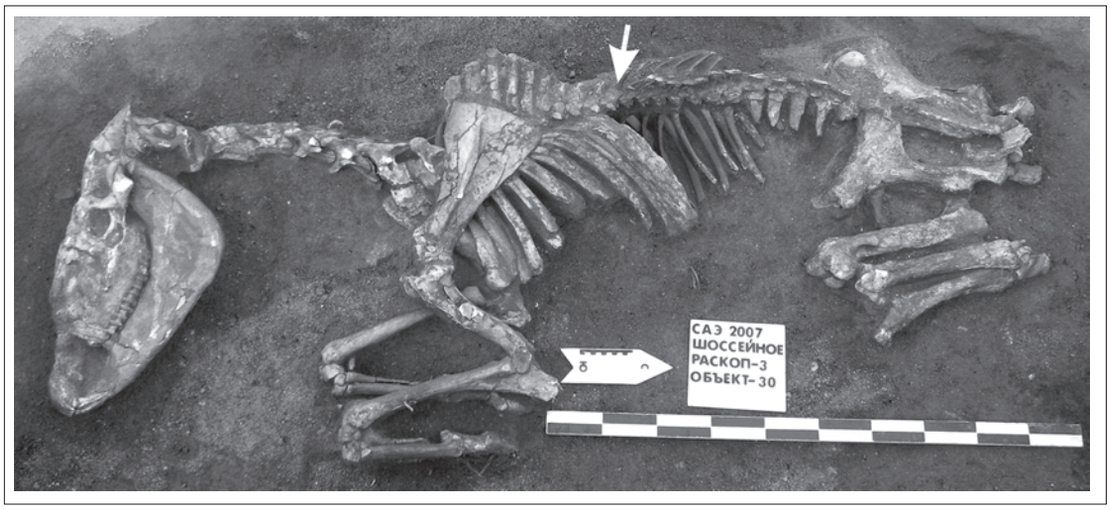

Fig. 4. Horse burial from Schosseinoe (former Dorf Warten Kreis Königsberg). Arrow shows a postmortem twist in the thoracic region of vertebral column (photograph by Skvortsov).

Table 1. Measurements of equestrian long bones, used in calculations of withers height and estimation of constitution

Bone (mm)/Horse	**Berezovka NS**		**Berezovka SS**		**Schosseinyi**	
Metacarpus	***sin***	***dex***	***sin***	***dex***	***sin***	***dex***
length	204	-	-	208	-	195
width of proximal epiphysis	47	-	-	45	-	47
width of diaphysis	32	-	-	30	-	35
width of distal epiphysis	47	-	-	44	-	46
Metatarsus	***sin***	***dex***	***sin***	***dex***	***sin***	***dex***
length	239	-	-	250	-	239
width of proximal epiphysis	45	48	-	46	-	50
width of diaphysis	37	31	-	28	-	32
width of distal epiphysis	45	-	-	52	44	44

as a thin-legged according to Tsalkin (1971, p.178ff). Still having a snuffle in its mouth, SS lies on its right side with head turned backwards over the left side. In the contrast with SS, the north skeleton (NS) lies almost on the belly (with some tilt to the left side), with hind limbs crouched under the croup and the head well above the rest of the body. NS belongs to the stallion of an equal age with SS. Its withers height, 126–128 cm ("short") and middle-leggedness (diaphysis index – 15.60) make it a bit smaller but more stumpy than SS. Skeletons of both horses do not show obvious traces of mortal wounds.

Single burial contains the complete skeleton of 8–10-years old stallion (Fig. 4), buried close to the inhumation of the supposed proprietor. Short, according to its withers height (121–123 cm), the stallion has thick legs (diaphysis index – 17.90). It lies on its right side with flexed legs. As in the case of double burial, horse skeleton does not show any traces, which could clarify the cause of animal's death. A twist in thoracic section of vertebral column is obviously *postmortem* (Fig. 4, see arrow mark).

It is still known little on the native early stock of Europe (Hyland 1994, p.3). Besides the possibility of having several independent cases of local domestications (Vila *et al.* 2001, p.474ff), horses could be traded or acquired during wars and migrations. In general, Germanic horses have been considered smaller, than Roman. Julius Caesar reports on them as 'inferior' even in comparison with Gallic horses. Archaeological data finely support this opinion. Although it is mainly based on material from older burials, as it has been mentioned above, it appears that little has been changed in Germanic and Baltic stocks for over centuries. Horses from double burial are equal with some from the sixth to the twelfth centuries' burials of Latvia and Germany, whereas the stallion from single burial nicely fits into Latvia-Central Lithuania group of sixth-twelfth

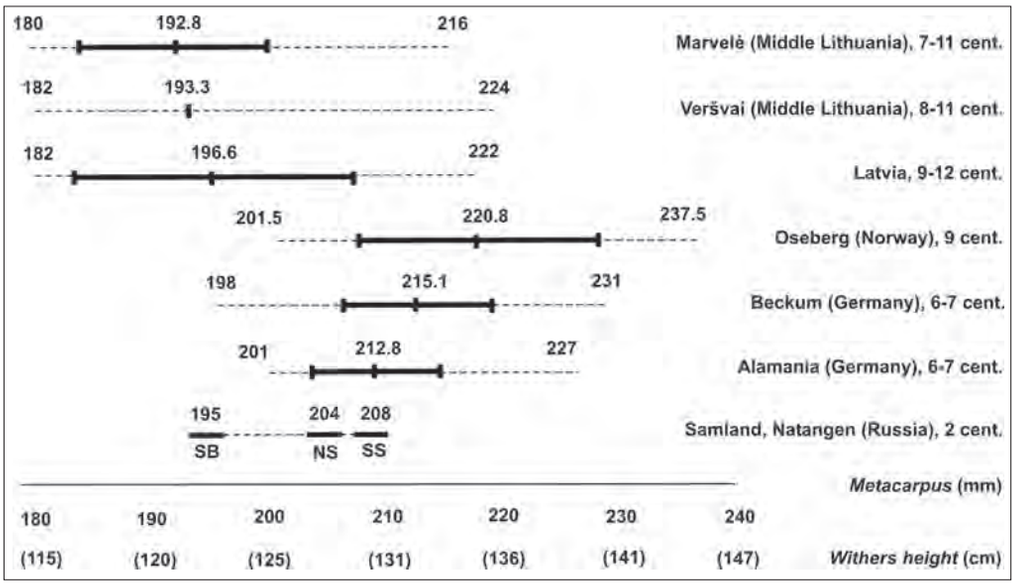

Fig. 5. Data on metacarpal lengths and withers height of studied horses: NS – northern and SS – southern skeletons of double burial from Berezovka; SB – single skeleton from Schosseinoe, positioned on the scheme from Bertašius and Daugnora (2001).

centuries (Fig. 5). All three stallions are undoubtedly riding horses despite their size. As two slender-legged horses form double burial can be considered best fitted for riding (southern skeleton still has some element of riding harness – Fig. 3), the stallion from a single burial, despite its thick legs, is also good for this purpose. Thick legs do not preclude the horse from being a good military companion. Publius Flavius Vegetius Renatus (the fourth – fifth century) among horses, best suited for military purposes, named Hunnish, which were short with "gaunt belly and big bones". Age of the buried horses support the idea that we deal here with riding horses, which were in use before inhumation. Two horses from double burial just entered the age of riding, which starts approximately after the end of third year of equestrian life, whereas this period for single-burial stallion has not ended yet. Most of the horses from Roman Period and Early Medieval burials are stallions and fit into age-span between 3.5-10 years (Bertašius, Daugnora 2001, p.393 fig. 9; von Babo 2004, p.138 table 25). We can only speculate on causes of death of buried stallions, as they do not show any suggestive traces on the bones. Aside from the chance of wounds made solely to soft tissues, there is still a high possibility, that these horses have been buried alive. This practice, when exhausted horse is forced to the pit, was not unusual among Greeks, Romans and Scandinavians (see Bertašius, Daugnora 2001 for further literature on the subject). The fact, that harnessed not partitioned horses were buried with their possible proprietors, rejects the hypothesis of ritual food offering for deceased. Most likely, horses in question were either the part of wealth, buried with proprietors and destined to serve them in afterlife, or mediators, which would bring them to the heaven (Valhalla and etc.).

Acknowledgments

I am grateful to Dr Konstantin Skvortsov (Kaliningrad Museum of History and Art, Kaliningrad, Russia) for providing a valuable material for the study. I also would like to thank Dr Alexander Khokhlov (Tver Scientific and Restoration Center, Tver, Russia), who supported this study.

Translated by author

References

Manuscripts

von BABO, V.F., 2004. *Pferdebestattungen auf dem frühmittelalterischen Gräberfeld Drantumer Muehle (Gemeinde Emsteck, Kreis Cloppenburg, Niedersachsen)*. Doktorarbeit. Hannover: Institut für Anatomie. Tierärztliche Hochschule. Hannover.

Literature

AMBERGER, G., KOKABI, M., 1985. Pferdeskelette aus den alamanischen Gräberfeldern, Giengen an der Brenz und Kosingen. *Fundberichte aus Baden-Würtemberg, Stuttgart*, 10, 257-280.

BENECKE, N., 1985. Zur Kenntnis der volkerwanderungszeitlichen und frühmittelalterischen Pferde aus den Pferdegräbern Nordost-Polens. *Zeitschrift für Archäologie*, 19, 197-205.

BENECKE, N., 2002. Zu den Anfängen der Pferdehaltung in Eurasien. Aktuelle archäozoologische Beiträge aus drei Regionen. *Ethnographisch-Archäologische Zeitschrift*, 43(2), 187-226.

BERTAŠIUS, M., DAUGNORA, L., 2001. Viking age horse graves from Kaunas region (Middle Lithuania). *International Journal of Osteoarchaeology*, 11(6), 387-399.

DA SILVA, M.F., GOMES, T., DIAS, A.S., MARQUES, J.A., JORGE, L.M., FAISCA, J. C., PIRES, G. A., CALDEIRA, R.M., 2003. Estimation of horse age based on dental features. *Revista Portuguesa de Ciências Veterinárias*, 98(547), 103-110.

DAUGNORA, L., 1994. Steeds of Marvelė burial-ground. *Proceedings of the Conference of the Second Workshop of the Veterinary Medicine Anatomists of the Baltic and Nordic Countries*. Riga, 12-15.

DAUGNORA, L., 1996. Steeds of Marvelé burial-ground. *Papers of the Conference of the Third Workshop of the Veterinary Medicine Anatomists of the Baltic and Nordic Countries*. Tartu, 14-19.

DAUGNORA, L., 1997. Metrical analysis of metacarpals and metatarsals of horses in Marvelé cemetery. *Veterinarija ir zootechnika*, 3(25), 235-246.

DRIESCH A. VON DEN, 1976. *A guide to the measurement of animal bones from archaeological sites*. Cambridge: Harvard University.

GRAESLUND, A.S., 1980. *Birka IV. The burial customs: a study of the graves on Bjoerkoe*. Stockholm: Almquist & Wiksell Intl.

HEYM, H., 1938. *Das Gräberfeld Zohpen. Ein Beitrag zur Volks- und Kulturgeschichte des Nördlichen ostpreussischen Binnenlandes von 400 bis zur Ordenzeit*. Doktorarbeit.

HOLLACK, E., 1908. Die Grabformen ostrpreussischer Gräberfelder. *Zeitschrift für Ethnologie*, 40(2), 145-193.

HOMER., 1924. *The Iliad*. Cambridge, MA: Harvard Univ. Press.

HYLAND, A., 1990. *Equus: the Horse in the Roman World*. London: B.T. Batsford Ltd.

HYLAND, A., 1994. *The medieval warhorse from Byzantium to the Crusades*. London: Alan Sulton Publ. Ltd.

KULAKOV, V.I., 2005. Eine verzierte wikingerzeitliche Trensenstange aus Dollkeim (Kowrovo) im Samland. *Archaeologisches Korrespondenzblatt*, 35, 273-281.

LEVINE, M., 1982. The use of crown height measurements and tooth eruption sequences to age horse teeth. *In*: B. WILSON, C. GRIGSON, S. PAYNE, eds. *Ageing and sexing animal bones from archaeological sites. British Archaeological Reports, British Ser.* Oxford, 91-108.

MÜLLER-WILLE, W.M., 1970-1971. Pferdegrab und Pferdeopfer im frühen Mittelalter. *Berichten van de Rijksdienst Oudheidkundig voor het Bodenmonderzoek*, 20-21, 119-248.

MUYLLE, S., LAUWERS, H., 1999. Age-related morphometry of equine incisors. *Journal of Veterinary Medicine, Series A*, 46(10), 633-643.

NOMINA ANATOMICA VETERINARIA. 2005. Hannover, Columbia, Gent, Sapporo: Edit. Comm.

OEXLE, J., 1984. Merowingerzeitliche Pferdebestattungen – Opfer oder Beigaben? *Frühmittelalterliche Studien*, 18, 122-172.

SHENK, P., 2002. *To Valhalla by Horseback? Horse burial in Scandinavia during the Viking Age*. Ms. thesis. Oslo: Univ. Oslo.

TSALKIN, V.I., 1971. Nekotoye itogi izuchenia kostnykh ostatkov zhivotnykh iz raskopok Moskvy. *In*: N.N. VORONIN, M.G. RABINOVICH, eds. *Drevnosti Moskovskogo Kremlia. Materialy i issledovania po arkheologii Moskvy*. Moskva, 164-185.

VILA, C., LEONARD, J.A., GÖTHESTRÖM, A., MARKLUND, S., SANDBERG, K., LIDEN, K., WAYNE, R. K., ELLEGREN, H., 2001. Widespread Origins of Domestic Horse Lineages. *Science*, 291(5503), 474-477.

VITT, V.O., 1952. Loshadi Pazyrykskikh kurganov. *Sovetskaia Arkheologia*, 16, 163-205.

Received: 21 October 2008; Revised: 20 March 2009;
Accepted: 12 June 2009

Andrei V. Zinoviev
Chaikovskogo avenue 70a
Biological Faculty
Tver State University, Tver, Russia 170002
E-mail: m000258@tversu.ru

ŽIRGAI IŠ DVIEJŲ II A. SEMBOS IR NATANGOS KAPINYNŲ (KALININGRADO SRITIS, RUSIJA)

Andrei V. Zinoviev

Santrauka

Nepaisant žirgų laidojimo praktikos egzistavimo baltų kraštuose romėniškuoju laikotarpiu, dabartinėje literatūroje aptinkama vien užuominų apie patį žirgą. Beriozovka ir Šoseinyj vietovėse (Kaliningrado sritis, Rusija) aptikti trijų žirgų skeletai suteikia vertingų duomenų apie romėniškojo laikotarpio žirgus Sambijos ir Natangijos kultūroje. Kapai datuojami II amžiumi. Žirgai buvo palaidoti netoliese galimų jų savininkų. Pirmajame kape rasti dviejų eržilų skeletai. Abu žirgai beveik neabejotinai buvo jojamieji: tai rodo aptikti pakinktų fragmentai ir jojimui tinkamas amžius (3, 5–4 metai). Atskirame kape palaidotas senas, 8–10 metų, eržilas taip pat laikytinas jojamuoju. Nors jo žemas ūgis ir storos kojos šiandieninės kavalerijos standartais neleistų šio žirgo priskirti jojamiesiems, tokia fizinė konstitucija labai artima hunų žirgams, kuriuos romėniškojo laikotarpio specialistai laiko efektyviais karo žirgais. Panašūs žirgai būdingi kaimyniniams regionams (Vokietija ir Lietuva) vikingų laikotarpiu. Žirgų kauluose neaptikta požymių, kurie leistų nustatyti jų mirties priežastį. Kamanotų žirgų laidojimo šalia galimų savininkų faktas leidžia atmesti ritualinio maisto mirusiesiems hipotezę. Labiausiai tikėtina, kad žirgai, būdami gerovės dalimi, buvo laidojami šalia jų savininkų, kad šiems tarnautų pomirtiniame gyvenime, arba atliko tarpininkų, gabenančių juos į Dausas, vaidmenį.

Vertė Jurgita Žukauskaitė