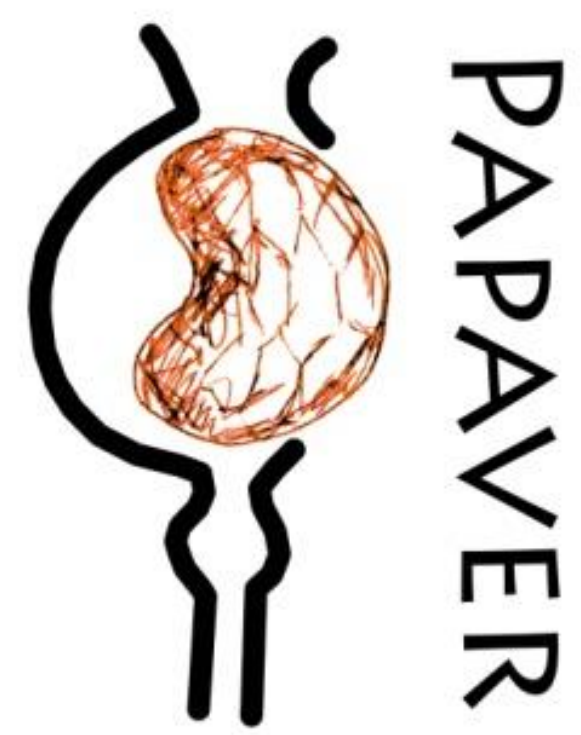


Vegetation history, plant and animal economy of early medieval South Bohemian settlement Na Jánu in Netolice

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South Bohemian hillfort Na Jánu in Netolice is located about 30 km west from České Budějovice. The Early Medieval settlement Na Jánu was one of the fortified centres of Premyslids dynasty. The hillfort, dated back to the 10th century, formed an important administrative and power centre of the region and reached its heyday in the 12th - 13th century. Systematic archaeological and bio archaeological research have proceeded since the year 2000 and have dealt with issues concerning excavations of former necropolis, foundations of former St. John church and development of adjacent suburban hinterland including surrounding fields (Beneš et al., 2010; Beneš et al., 2012). Archaeozoological data supported the importance of this hillfort compared to other contemporary sites in Bohemia. The results so far implied that animal production proceeded within the area of the hillfort and revealed significant representation of bone remains of hunted fauna in the assemblage. From the point of plant macro and microfossils record, soil environment was rather unsuitable for its proper preservation at the site. Preservation of plant macroremains as well as their abundance is low in all cultural layers. Spectrum of utility plants and weeds was uncommon and more detailed chronological specification will be given based on recovered pottery fragments. In case of pollen, no fossil grains were recovered at all. However, systematic prospecting of nearby areas revealed suitable alluvial sediments for plant remnants analyses. Samples taken from three trenches of Rapačov brook and its palaeomeander located in nearby field proved excellent preservation of pollen grains. Distinct shift in vegetation composition in surrounding landscape reflected sudden human influence as recorded in the sediment of Rapačov palaeomeander. Further, intense human impact in the period presumably between 1675-1940 was revealed in the composition of pollen spectra along one of the alluvial soil profiles. The contribution deals with the first complementation of preliminary results of bio archaeological analyses, confirming the importance of the site as a central point in South Bohemia.



Fig. 1. Location of early medieval hillfort Na Jánu Netolice, South Bohemia, Czech Republic.

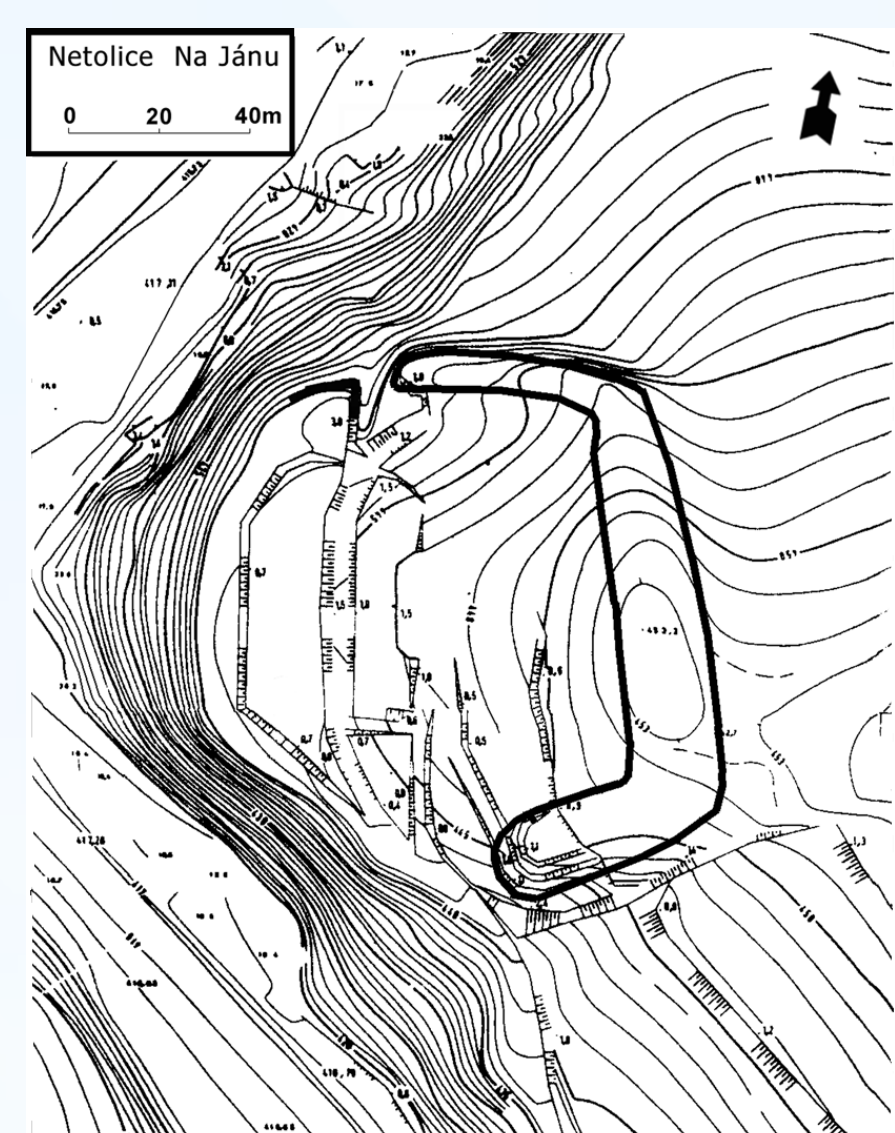


Fig. 2. Contour layout plan of the hillfort with an approximate range of the eastern rampart.



Fig. 3. View on the reconstruction of the walls of the hillfort Na Jánu, Netolice.

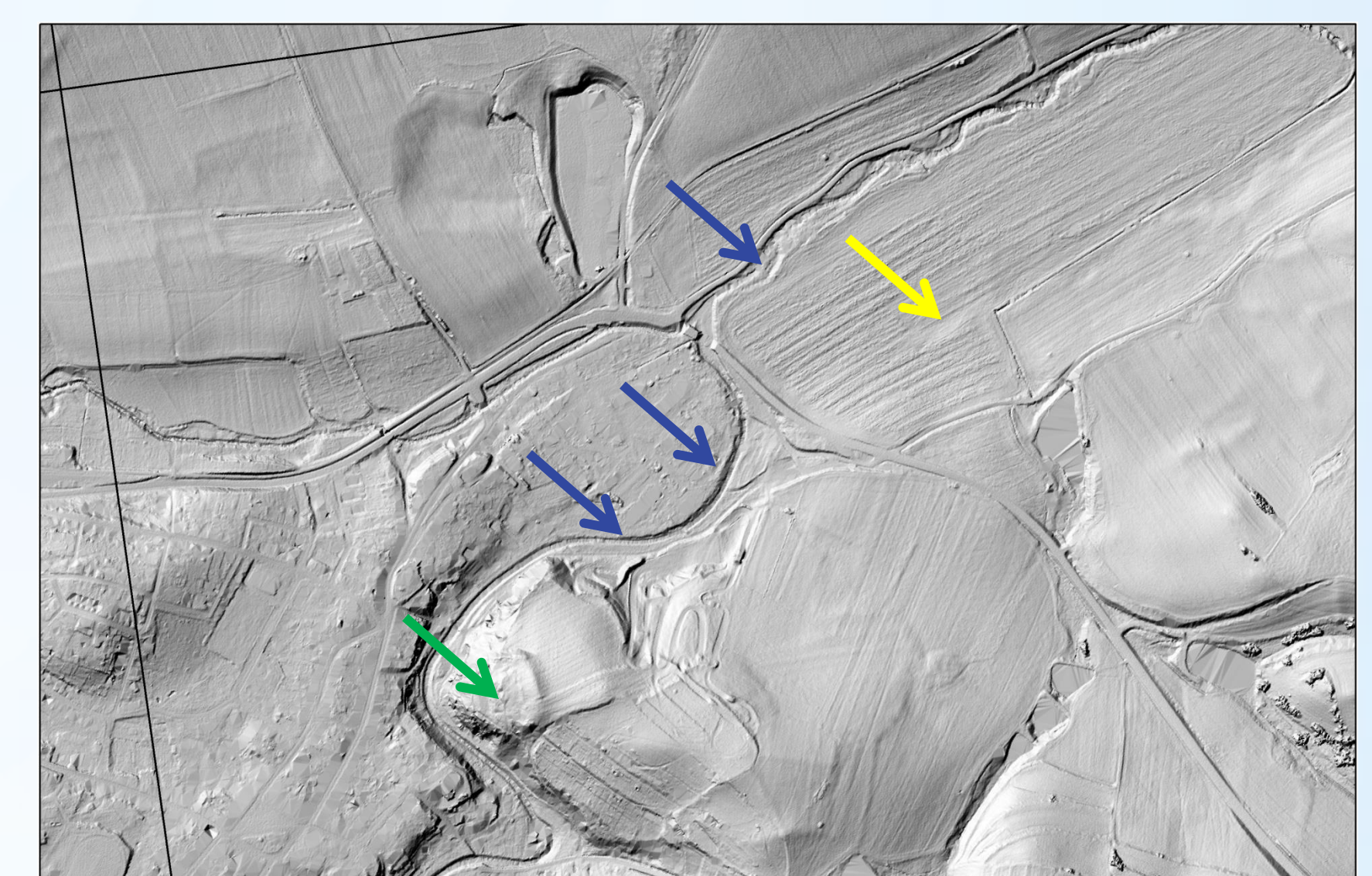


Fig. 4. LIDAR – the green arrow represent the hillfort. The blue arrows are trends of Rapačov I-III and the yellow arrow is location of palaeomeander.

AIMS

- 1) To reveal the reconstruction from faunal remains of human subsistence and the reconstruction of palaeoecology in the neighbourhood of the site and approaching of animal utilization and possible status differences in the people consuming the animals.
- 2) To reveal structure used earthmoving and harvested crops.
- 3) To reconstruct local vegetation development and trace human impact from palynological analysis preliminary results.
- 4) To reconstruct through archaeological excavations form and development of hillfort.

Fig. 5. The ratio of the hunted fauna remains in the Netolice stronghold in comparison with other early medieval sites (data taken from: Novotný 1966, Kratochvíl 1969, Peške 1978, Peške 1985, Kyselý 2000a, Kyselý 2000b, Kyselý 2003, Kovačiková 2003, Kyselý 2004, Mlíkovský 2006, Kovačiková 2012, Kuna et al. 2013).

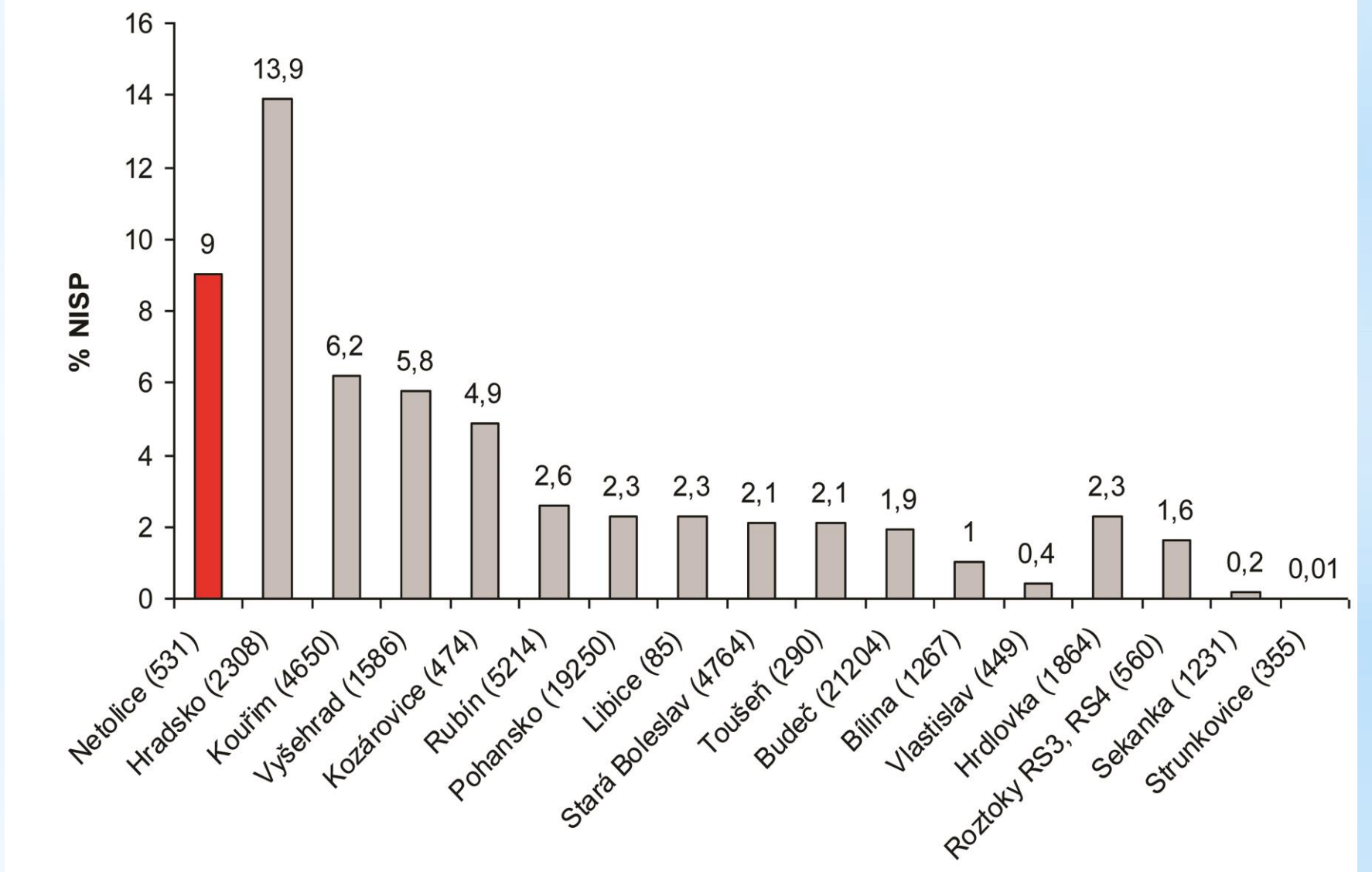


Fig. 6. Cerealia (n=140).

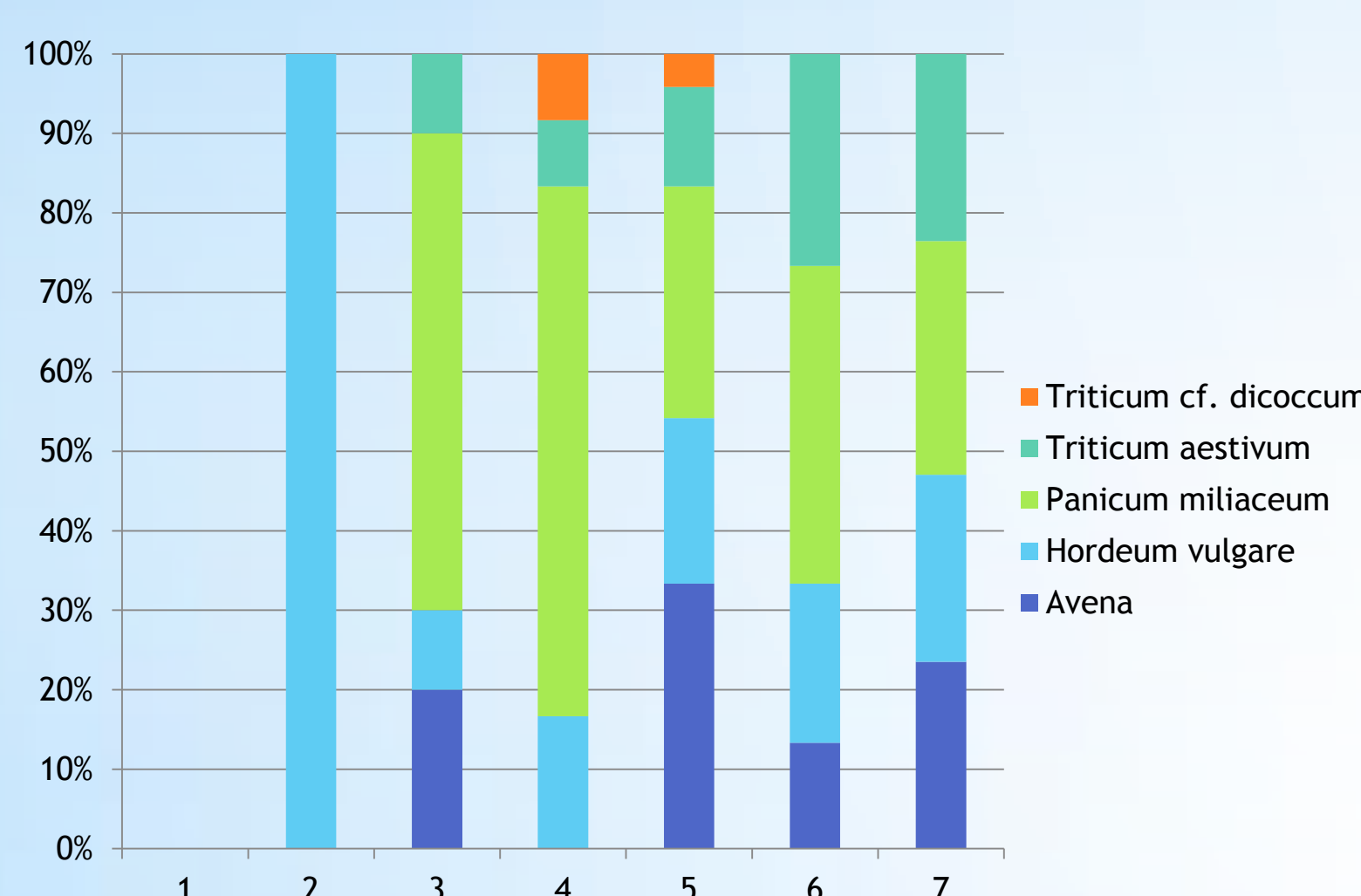
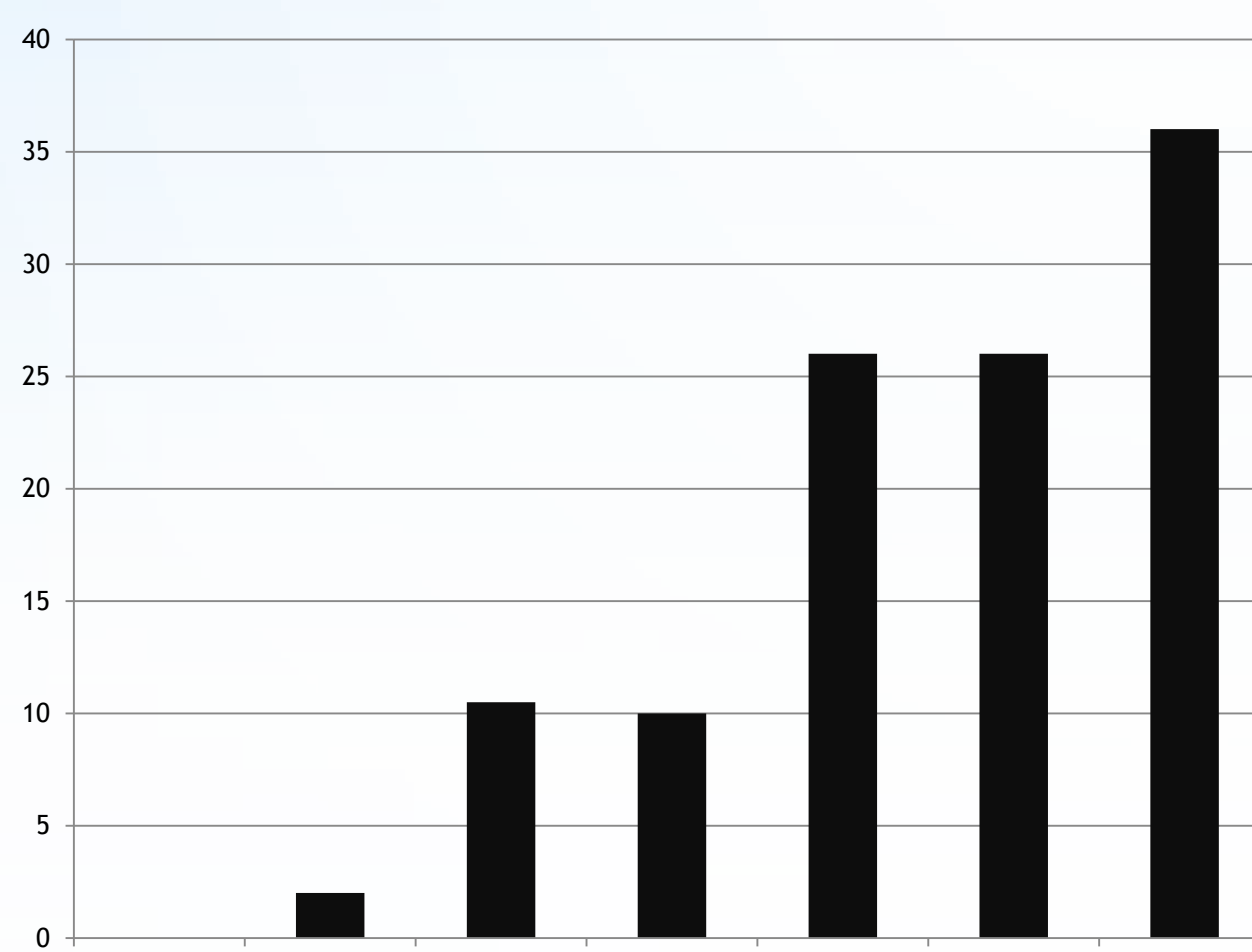


Fig. 6 and 7. Preliminary results from the trench 16/2013, which is situated under the rampart and captures the cultural layer.

Fig. 7. The number of plant macrofossil in mechanical layers, conversion to constant volume.



Secale cereale, trench 10, grave 3



The **archaeozoological** assemblages, found in three probes (7, 8 and 9), contained 1626 animal bones and teeth (32,7 % were determined). Remains of domestic animals fully dominated (90,8 % of identified specimens). The largest represented animals were domestic pig (*Sus domesticus*, 46,3 %) and cattle (*Bos taurus*, 35 %). Bones of sheep and goats (*Ovis/ Capra*, 8,9 %) and horse (*Equus caballus*, 0,6 %) appeared considerably less often. Besides farming of domestic animals, people were dedicated to hunting. They hunted in a larger amount than on most other contemporary sites (Fig. 5) where the percentage of hunted animals remains usually do not exceed 5 %. The hunted fauna included wood species as well as grassland species which is indicative of the type variability of the landscape around the stronghold. Both the bones from the flesh-bearing parts of a skeleton and waste bones were found in the location of the acropolis. The presence of various anatomies may indicate (1) farming of domestic animals locally or (2) the supply of animals from elsewhere and their subsequent slaughter on the acropolis. More than a half of all the domestic pigs (61,5 % individuals) was slaughtered in the age span of 1-2 years.. More than a half of all the cattle (63,6 %) was slaughtered for meat in the age span of 1-4 years. The rest of the individuals (36,4 %) lived to the age of 11, and their purposeful reproduction, use for labour, or milk production can be supposed.

The preliminary results of **pollen analysis** are divided into the two groups. The on-site samples are from hillfort and surrounding fields and almost negative on the pollen grains (hillfort is not suitable for preservation of pollen). The results of Rapačov II. and III. profiles are unrepresentative, almost no pollen and grains poorly preserve. The Rapačov I. profile is very rich on the pollen grains and record the transition to human influence. The palaeomeander samples are from a 9 and 10 bore holes, and contain a significant quantity of trees, and between approximately 120-130 cm starting anthropogenic indicators (such as *Secale cereale* and *Plantago lanceolata*), possibility of dating C14.

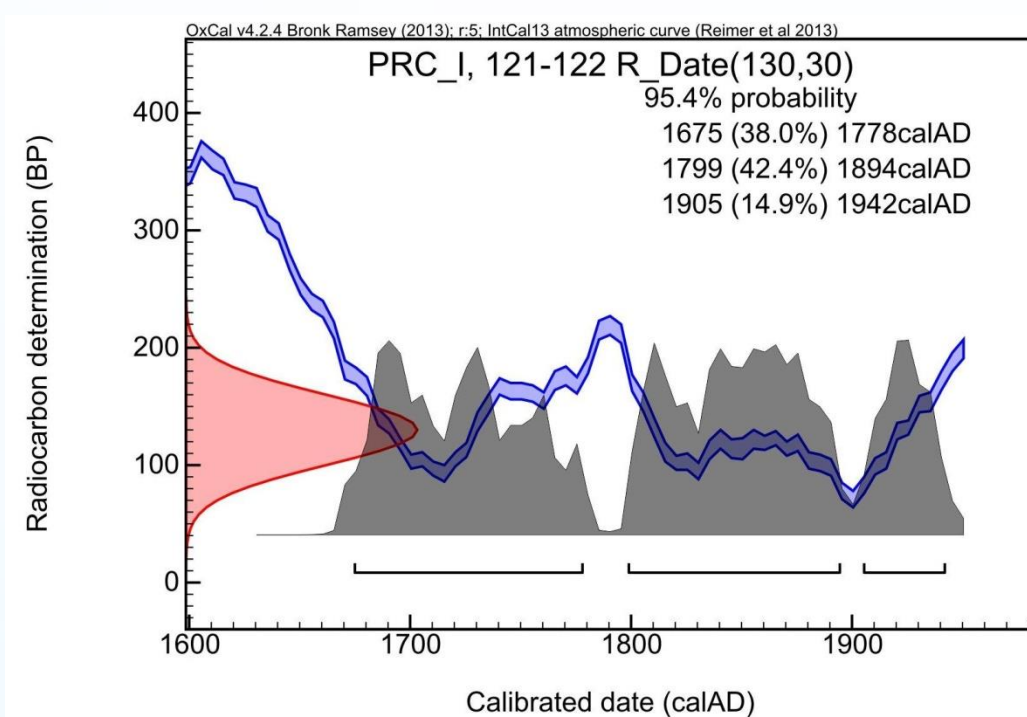


Fig. 9. Results of dating from Rapačov I. profile.



Plantago lanceolata-tyt
Photo: Petra Houfková



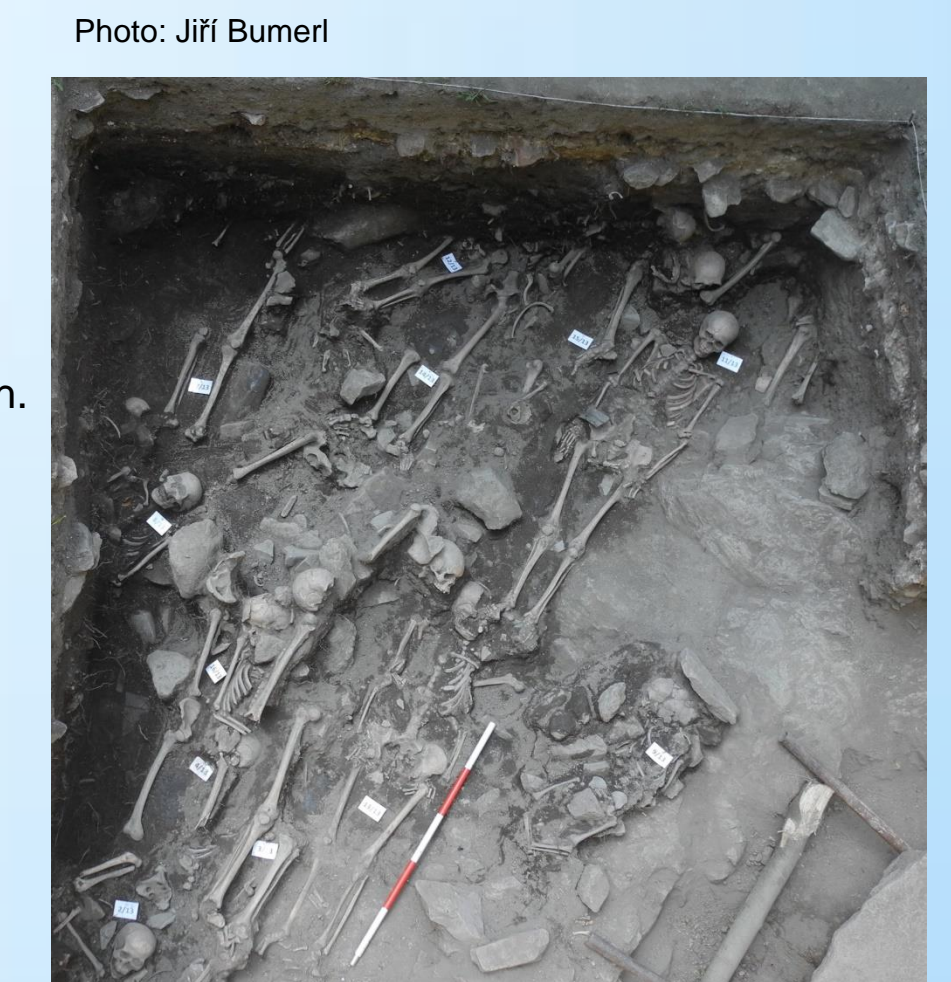
Fig. 10. Nearby of the brook Rapačov.



Fig. 11 and 12. View of the surrounding landscape with location of palaeomeander.



Fig. 12 and 13. Skeletal remains in the cemetery at the sv. Jan Křtitel church.



Investigation in trench 10 began in 2008 and was completed in 2014. The trench measured 6x11 meters and was examined masonry defunct church of St. John Baptist (repealed 1788) and the related early and high medieval necropolis. The lowest part was captured by the original early medieval landscape with traces of burnt wooden structures.