

## Supplementary material 6 – Burial 26, Vlasac

Regarding the outlier from Burial 26, in the first publication about Vlasac the authors noted that this burial did not belong to the Mesolithic layer, and that instead it was of a younger date (Srejšović, Letica 1978), while in some other studies (e.g., Borić, Price 2013; Jovanović et al. 2018) it was associated with the Late Mesolithic phase. The remains belong to a middle-aged male, for whom it was emphasised within some previous studies that the remains were unlike others concerning isotopic and health status (Jovanović 2017; de Becdelièvre 2020), although some other data, such as Late Mesolithic relative chronological attribution in some studies, Sr radiogenic signal of local origin (Borić, Price 2013), and extended supine burial position (Srejšović, Letica 1978), showed Mesolithic assignment. The isotopic ratios (see SM 4) show that he had a combination of higher  $\delta^{13}\text{C}$  ( $-17.5\text{‰}$ ) and lower  $\delta^{15}\text{N}$  ( $11\text{‰}$ ) values than the other individuals from Vlasac. In the light of new AMS dating results, one can hypothesise that he had a diet based on  $\text{C}_4$  plants (such as millet) and/or  $\text{C}_3$  plants and small aquatic foodstuffs, although without the associated Medieval faunal values it is not possible to firmly distinguish between these possibilities. He was also marked as one of the rare Mesolithic individuals with caries (one out of three individuals) within the previous studies, since dental caries almost did not exist in the Mesolithic phase of the Danube Gorges (Jovanović 2017). According to the results of strontium analysis this man lived somewhere in the vicinity from the place where he was buried, which may suggest that he lived in one of the fortifications or settlements in that area. He was buried carefully, by Medieval customs, but considering that there were no grave goods one cannot say more about the origin of this man. In the time that he lived the Bulgarian Empire ruled over that territory, but the Byzantine and Hungarian Empires, as well as the Serbian state, were also present. This was a turbulent period, and any of the many historical events associated with it could have led to this isolated burial. So, the question of who this man was, and why was he buried there remains open. Based on anthropological analysis one can say that this man did not have an easy life. Analysis of the muscle attachment showed that he did some sort of constant physical labour with his upper extremities, which is also supported by septal perforation of left and right humerus, while the specific pattern of muscle attachments and prominence of the lower limbs can indicate that he was a horse rider. The periosteal reactions which he had on the leg bones and osteoarthritis on the spine have also been connected by some authors to habitual horse riding (Fornaciari et al. 2007; Molleson 2007; Wentz, de Grummond 2009; Üstündağ, Deveci 2011; Andelinović et al. 2015). This man also had possible injury on the mandible, and a healed fracture of the right clavicle, which can be the consequence of a fall from the horse (e.g., see Wentz, de Grummond 2009) or some other event. Regardless, the new AMS dating results confirmed the first assumption, made by Srejšović and Letica (1978), giving it a more precise chronological attribution.

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## References

- Andelinović Š., Anterić I., Škorić E., and Bašić Ž. 2015. Skeleton Changes Induced by Horse Riding on Medieval Skeletal Remains from Croatia. *The International Journal of the History of Sport* 32(5): 708–721. <https://doi.org/10.1080/09523367.2015.1038251>
- Borić D., Price T. D. 2013. Strontium isotopes document greater human mobility at the start of the Balkan Neolithic. *Proceedings of the National Academy of Sciences* 110(9): 3298–3303. <https://doi.org/10.1073/pnas.1211474110>
- de Becdelièvre C. 2020. *Eco-ethology of prehistoric populations living in the Danube Gorges c. 9500–5500 BC. Bioarchaeological perspectives on human habitual behavior and adaptive strategies during the Mesolithic and Neolithic transformations*. Unpublished PhD thesis, Faculty of Philosophy. University of Beograd. Beograd.
- Fornaciari G., Vitiello A., Giusiani S., Giuffra V., and Fornaciari A. 2017. The Medici Project first anthropological and paleopatological results of the exploration of the Medici tombs in Florence. *Medicina nei Secoli* 19(2): 521–544.
- Jovanović J. 2017. *The diet and health status of the Early Neolithic communities of the Central Balkans (6200–5200 BC)*. Unpublished PhD thesis. Faculty of Philosophy. University of Beograd. Beograd.
- Jovanović J., de Becdelièvre C., Stefanović S., Živaljević I., Dimitrijević V., and Goude G. 2018. Last hunters-first far-

mers: new insight into subsistence strategies in the Central Balkans through isotopic analysis. *Archaeological and Anthropological Sciences* 8: 1–20.

<https://doi.org/10.1007/s12520-018-0744-1>

Molleson T. 2007 A method for the study of activity related skeletal morphologies. *Bioarchaeology of the Near East* 1: 5–33.

Srejskić D., Letica Z. 1978. *Vlasac: Mezolitsko naselje u Djerdapu, vol. 1 Arheologija*. Srpska akademija nauka i umetnosti. Posebna izdanja, knjiga 512. Beograd.

Üstündağ H., Deveci A. 2011. A Possible Case of Scheuermann's Disease from Akarçay Höyük, Birecik (Şanlıurfa, Turkey). *International Journal of Osteoarchaeology* 21: 187–196. <https://doi.org/10.1002/oa.1120>

Wentz R. K., de Grummond N. T. 2009. Life on Horseback: Palaeopathology of Two Scythian Skeletons from Alexandropol, Ukraine. *International Journal of Osteoarchaeology* 19: 107–115. <https://doi.org/10.1002/oa.964>