

EARLY MEDIEVAL RIVETED AXE-SHAPED BARS FROM TRNOVEC NAD VÁHOM

V L A D I M Í R T U R Č A N

Two early medieval iron axe-shaped currency bars are published in this article for the first time. One of them was formed by two riveted pieces. This was a rather uncommon technological adjustment for this period.

Keywords: Slovakia, Early Middle Ages, axe-shaped bar.

Iron axe-shaped bars were an intrinsic element of the Great Moravian material culture. Although often the bars are found damaged or broken, measurements indicate that the weights and dimensions of the bars were standardised (*Bialeková/Tirpáková 1989; Tirpáková/Bialeková/Vlkolinská 1989, 427–443*). In the literature, the bars are dated back to the period between the end of the 8th c. and the beginning of the 10th c. (*Hájnik 2019, 119, 120*). Most of the bars come from depots and are virtually absent in graves – although there are single finds from graves.

The Slovak National Museum – Archaeological Museum in Bratislava has in its collection a pair of overlooked bars described as coming from Trnovec nad Váhom, Šaľa district, without any further annotation. The village of Trnovec nad Váhom is located in the eastern part of the Danube Basin, on the left bank of the river Váh. The early medieval settlement in the village is confirmed by the presence of a settlement feature dated back to the 7th–8th c. (*Bielich 2007*) and an extensive cemetery with inhumation graves used in the 9th and 10th c. (*Hanuliak 2004, 277; Točík 1971, 137–184*).

If the description placed on the bag is correct, the bars can be considered as consistent with abundant finds from the low and middle sections of the Váh and Nitra rivers. A great density of the bars finds is also recorded in southern Moravia (Fig. 1).

DESCRIPTION

1. An iron axe-shaped bar with a pointed, grooved and bent back, a cut-through square punch, longitudinal lobes along the edges with a longitudinal leaf and a rounded blade. Dimensions of the item: Length

32.6 cm, maximum width 4.7 cm, the leaf thickness 0.4 cm. The opening is 0.9 × 0.6 cm. The bar weighs 186.731 g¹ (Fig. 2: 1) and is deposited in the Slovak National Museum – Archaeological Museum in Bratislava (no. AP 68 407).

2. An iron axe-shaped bar with a rounded back, a cut-through square punch longitudinal lobes along the edges with a longitudinal leaf and a rounded blade. The leaf consists of two parts roughly joint with a rivet. Dimensions of the item: Length 31.4 cm, maximum width 4.4 cm, the leaf thickness 0.4 cm. The opening is 1.2 × 0.8 cm. The leaf length 16.5 cm, the rear length 16.4 cm, the rivet dimensions 1.3 × 0.9 cm. The overlap length 2.1 cm. The bar weighs 183.97 g (Fig. 2: 2–5) and is deposited in the Slovak National Museum – Archaeological Museum in Bratislava (no. AP 68 408).

According to the classification by R. Pleiner and D. Bialeková, the bars from Trnovec nad Váhom could be attributed to the II. class (*Bialeková/Turčan 2007, fig. 9; Pleiner 1961, 426*) and belong to the longest and heaviest specimens of this class.

One of the finds consists of parts of two different bars joint roughly in the middle with a rivet (Fig. 2: 2–5). The riveting method has been known already in the Bronze Age (*Felcan/Stegmann-Rajtár/Tirpák 2019, 146*) and remained in use also in the Middle Ages as confirmed, for instance, by riveting of iron cauldrons (*Dostál 1975, 228, 229*). Occasionally, the method was also used to fix damaged items such as scythes (*Borzová/Pieta/Jakubčinová 2020, 38, pl. XX: 5; XXIV: 1, 5*). It is a rather unusual method of fixing bars. However, a similar riveting could have been used to fix a bar from Bojná (*Pieta/Ruttkay 2007, fig. 9: 10*). The drawing and the preliminary analysis of the item, however, do not allow drawing more exact conclusions.

Spectral surface Roentgen analysis of the bars from Trnovec showed that the rivet contains

¹ Weight after basic cleaning and before conservation.

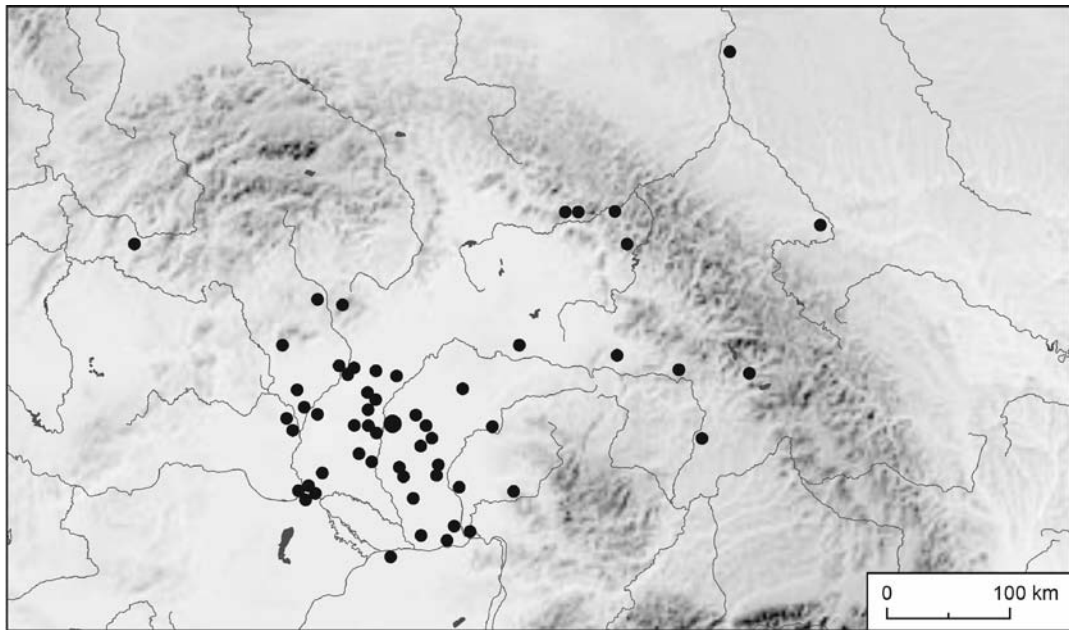


Fig. 1. Distribution of early medieval axe-shaped bars. The larger circle: Trnovec nad Váhom (based on *Bialeková 2000, 201*).

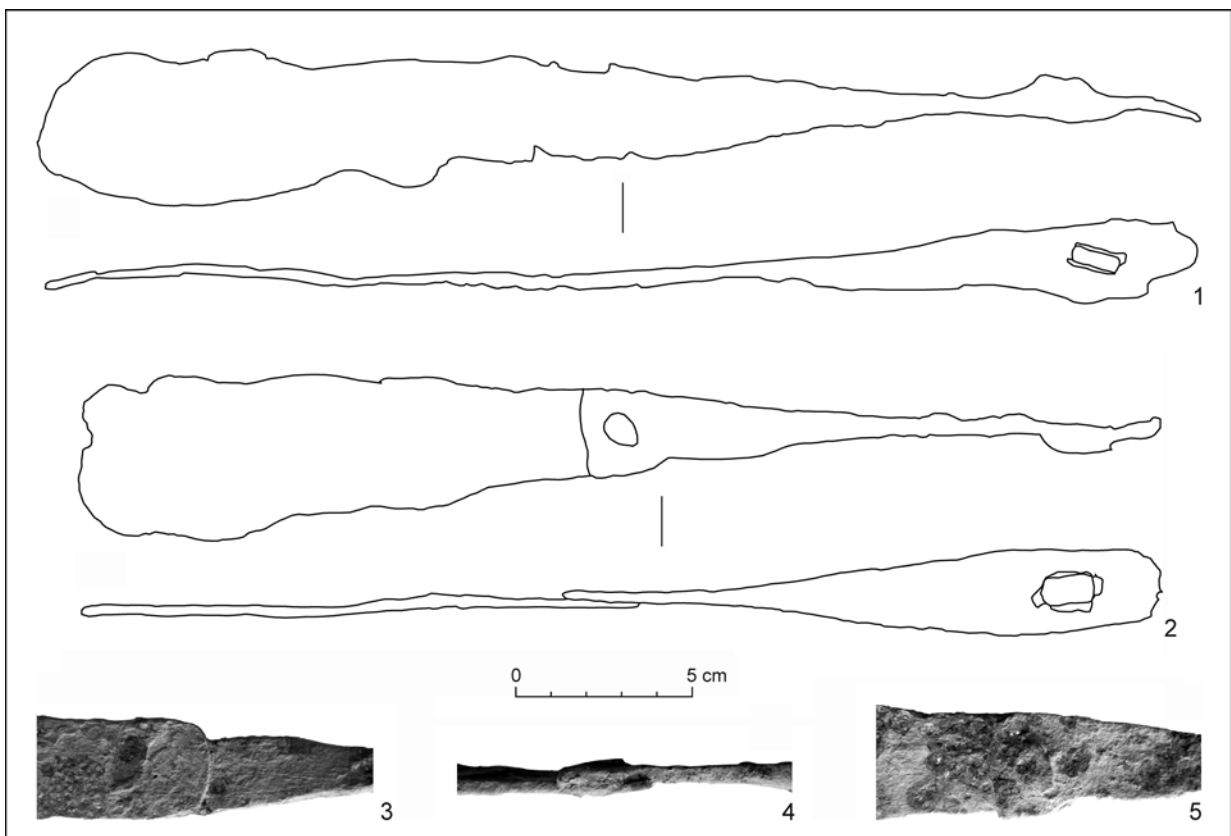


Fig. 2. Trnovec nad Váhom. 1, 2 – iron bars; 3–5 details of bar no. 2.

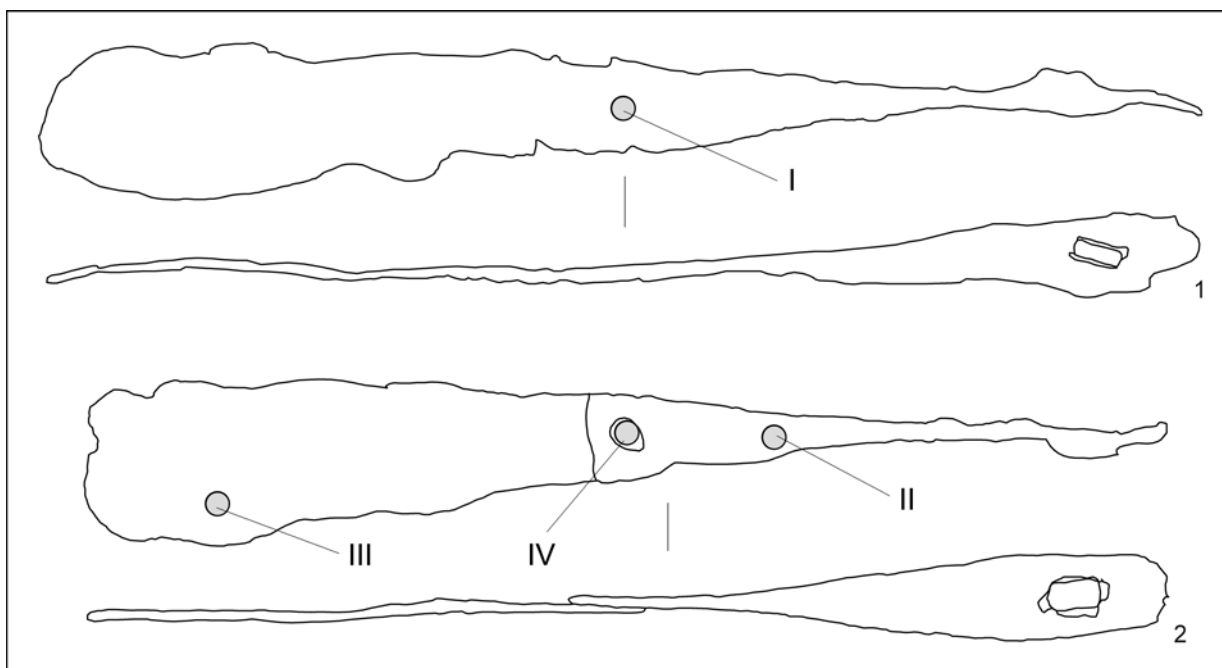


Fig. 3. Trnovec nad Váhom. Point measurements by spectral surface analysis.

Tab. 1. Trnovec nad Váhom. Results of point measurements by spectral surface analysis. The numbers are in accordance with Fig. 3.

Iron bars	Fe	Co	Pb	Mo	Cu	Ni	Zr
Bar 1, point I	99.72	–	–	0.023	0.055	–	–
Bar 2, point II	99.60	–	–	–	0.039	0.218	–
Bar 2, point III	99.69	–	–	–	0.124	–	–
Bar 2, point IV (rivet)	99.33	0.304	0.016	0.041	–	0.192	0.010

Spectral surface Roentgen analysis was made using the XRF NITON XL3t unit. Manufacturer: Thermo Fisher Scientific, NITON, USA (the analysis was performed by R. Čambal, The Slovak National Museum – Archaeological Museum in Bratislava).

a different proportion of impurities than the bars (Fig. 3; Tab. 1).² This indicates that the rivet comes from a different source as the bars – either in terms of the raw material it was made of or was made in a different workshop.

In the literature, there are two competing interpretations concerning the iron axe-shaped bars. Some of the researchers believe that bars were equivalent to money or a pre-monetary currency (Bialeková 1990, 99; Galuška 2017, 198; Hájník 2019, 141; Pleiner 1961, 442; Pošvář 1963, 137; Žigo 2017, 26,

27). Others question this hypothesis (Curta 2011, 318; Harvát 2019, 16–19; Macháček 2012, 781; Štefan 2011, 343).

The reason, however, why two damaged bars were combined into one could be sought only in the bars having a standardised market function that required specific weight and shape. It would be difficult to find another reason to repair the bar. Therefore, we can say that the bar from Trnovec nad Váhom contributed considerable weight to the debate about the function of these specific early medieval finds.

² I would like to thank R. Čambal for the analysis.

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