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Preservation of the Archaeological Record and Grave Goods at the Pezdirčeva Njiva Cemetery: An Integrated Geoarchaeological, Archaeometric, and Conservation Science Approach

Pezdirčeva njiva is an extensive Iron Age cemetery located on the terminus of Kučar's western backslope. In use from the Late Hallstatt into the La Tène period (late 5th–2nd centuries BC), it contains both burial mounds and flat graves, with skeletal burials predominating and a smaller number of cremations. A total of 183 graves, excavated between 2017–2021, were preserved exclusively within the site's B horizons. Archaeometric analyses of bronze and iron artefacts from Late Dolenjska Hallstatt and Vinica type graves revealed the counter intuitive result that metal objects were, overall, better preserved in the older graves.

In this study, we examine how the interplay of natural and anthropogenic processes over time shaped the stratigraphic record at the site. We also aim to explain the preservation of grave goods at Pezdirčeva njiva within the broader context of the site's palaeoenvironment and soil development. Drawing on three integrated datasets—the site's soil stratigraphy, the geochemical and micromorphological properties of the soils, and a geomorphic analysis of slope processes—we developed two theoretical models: the first reconstructs site specific soil development throughout the Holocene, and the second explains the transformation and preservation of the archaeological record and artefacts.

The soil stratigraphy at the cemetery indicates that the degradation of the archaeological record and artefacts in the Late Hallstatt period graves, driven by bioturbation, eluviation-illuviation, and redox processes, accelerated only after agricultural fields were established over the burial site and the burial mounds had eroded from the surface. These processes began to affect the Late Hallstatt record significantly later than they did in the flat Vinica type graves, which have been continuously exposed to them since the La Tène period. Consequently, the archaeological record of the Vinica type graves is considerably more degraded, and the artefacts within them are more poorly preserved. The model therefore offers a plausible explanation for the apparent paradox that the younger flat Vinica type graves, together with their grave goods and the overlying buried soils, are less well preserved than the Late Hallstatt period buried soils and graves with artefacts beneath the burial mounds.

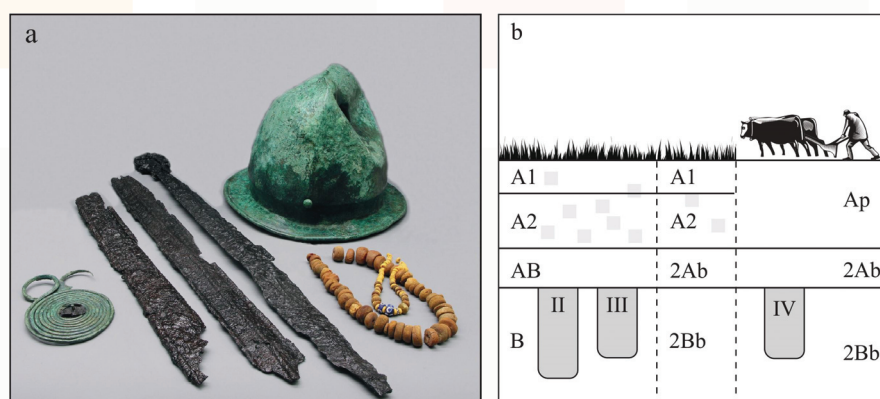


Figure 1 Grave goods and the archaeological record from Pezdirčeva njiva: (a) bronze, iron, amber, and glass artefacts from Dolenjska and Vinica-type graves at Pezdirčeva njiva (photo: N. Nemeček); (b) pedomatigraphic contexts at the site: Late Hallstatt-period burial mounds (left and middle columns) and flat Vinica-type graves (right column).

3rd Annual Conference
of the Slovenian Node
of the European Research
Infrastructure
for Heritage Science

E-RIHS Slovenia
Koper, 18–19 November 2025

