Finnic females? Tracing the origin of the women in the Proto-Finnic-speaking Eastern Baltic

Elina Salmela,[*1,2] Lehti Saag,[3] Marge Konsa,[3] Alena Kushniarevich,[3] Raivo Suni,[3] Ulla Nordfors,[1] Liivi Varul,[4] Mari Tõrv,[3] Kristiina Tambets,[3] and Terhi Honkola[2]

[*] presenting author

1. University of Turku, Finland
2. University of Helsinki, Finland
3. University of Tartu, Estonia
4. Tallinn University, Estonia

Speakers of Proto-Finnic are thought to have arrived in the Eastern Baltic by the beginning of the Iron Age (ca. 500 BCE; Kallio 2015). Meanwhile, the archaeological and ancient-DNA (aDNA) record from the region of modern-day Estonia attest to a concurrent change in the material culture and in the gene pool (Lang 2016, Saag *et al.* 2019). Specifically, aDNA has highlighted the appearance of Siberian-like ancestry, both in the paternally inherited Y-chromosomal haplogroups and genome-wide, by the Early Iron Age at the latest (Saag *et al.* 2019). This ancestry is still present in the extant Estonian population (Ilumäe *et al.* 2016, Tambets *et al.* 2018). As the frequency of this ancestry is higher in Y chromosomes than genome-wide – in the ancient and extant populations alike – and as Y-chromosomal haplogroups are only carried by males, the population movements relating to their arrival have often been postulated to have been male-dominated; however, such views have also been criticized recently (Moilanen *et al.* 2023). Notably, the existing aDNA record rests almost exclusively on males, shadowing the possible role of women in the arrival of the Siberian-like ancestry and the Finnic language. In this study, we have explicitly focused on studying females from the Early Iron Age *tarand* cemetery of Kunda Hiiemägi in present-day Northern Estonia. With the

use of aDNA analysis and radiocarbon dating as well as provenance and diet-related isotopes, we will provide a glimpse into the daily lives of Early Iron Age populations and illuminate the complex population dynamics behind the cultural transition at the arrival of Finnic languages to the Eastern Baltic.

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