Early migrations of the Goths in the light of specialized analyses

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The migrations of Goths and their consequences were undoubtedly one of the most important events, shaping European history in the Roman Iron Age. It has always attracted the attention of academics and history enthusiasts alike. However, despite their importance, pinpointing and confirming those movements with empirical data have proven to be challenging task and so far, our knowledge about Gothic migrations is based mostly on historical and archaeological data. In contemporary day Poland the Gothic migrations are most commonly associated with the appearance and spread of Wielbark culture. In particular sudden appearance of complex stone structures (such as stone circles, pavements or stelae) on cemeteries associated with that culture is often thought to be a sign of foreign migrants.

At the same time, according to some researchers, the mainland genesis of Wielbark culture no longer raises any doubt, as it took form in Pomerania during the 1st century AD possibly evolving from Oksywie culture predating it. The same researchers admit though, that the relatively sudden appearance of complex stone structures as an already fully formed and diverse phenomenon is best explained by migration from Scandinavia, where best analogies for those structures can be found.

Here we propose the use of novel state-of-the art methods provided by geochemistry and biology, such as isotopes and high coverage genomic data analyses, to shed more light on the issue of the emergence and subsequent spread of Goths, commonly associated with Wielbark culture. All of the samples selected for the study, most of which were taken from humans buried on sites with stone structures, will undergo ancient DNA analyses as well as AMS radiocarbon dating, carbon and nitrogen stable isotope analyses of collagen, as well as strontium, oxygen and carbon isotope analyses of enamel. The migration of the Goths from Scandinavia to today's northern Poland is a rare case where the geologies of the areas of departure and arrival are significantly different. Hence, the isotopic composition in the enamel of people born and raised in Scandinavia would differ greatly from the one found in people born in contemporary northern Poland.