

THE CHRONOLOGY OF THE TRYPILLIA CULTURE AND THE BAYESIAN APPROACH

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The relative chronology of the Cucuteni-Trypillia culture was established first of all on the basis of pottery found in the settlements, taking into account both the shapes of the vessels as well as their ornamentation. Besides the main chronological phases, the sites with similar materials, usually clustered spatially, are grouped into so called local groups. The absolute chronology of Trypillia culture is still controversial despite the rather large amount of radiocarbon dates available. There are two main reasons for this problem. The first one is the quality of the available radiocarbon data, many of which were considered unreliable. Only in recent years the old pool has been supplemented by new sets of radiocarbon data. The second problem is the fact that there are almost no stratified settlements of the Cucuteni-Trypillia culture which would allow a more precise absolute chronology.

While the absolute chronology of the South-Eastern European tell settlements could be refined using the Bayesian approach, this method is not appropriate for the single-layered settlements of the Cucuteni-Trypillia culture. However, some research groups are working on the refinement of the chronology of particular settlements of the Trypillia culture applying the Bayesian modelling.

In my research I have followed a supra-regional chronological perspective of the Trypillia culture using Bayesian approach. The applicability of Bayesian modelling in the context of Trypillia culture was tested, based on relative chronology as prior information. In this paper I will show, that applying the Bayesian modelling on the radiocarbon dates of Trypillia culture has both possibilities and limits. But by and large this method can be used despite the absence of stratigraphic sequences in case of a well-established relative chronology.

Keywords

Cucuteni-Trypillia culture, Copper Age, chronology, Bayesian modelling, radiocarbon dating

Note/comment