

Bayesian chronological tools in event reconstruction – case study of Vuoksi breakthrough

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In archaeology Bayesian chronological tools have been considered to be even another revolution in understanding cultural evolution. In this work, we present a case in which Bayesian chronological modelling is used in transdisciplinary study to reveal most probable event sequence of geological anomaly and nearly contemporaneous cultural development.

Particularly, we show that an abrupt water level decline of an ancient Lake Saimaa nearly 6000 years ago preceded a cultural change bringing in the most influential of the past cultures into the eastern Finland – the Typical Comb Ware. The change was accompanied by an increased usage of moose, consistent with the ecological development of new residual wetlands and with the observed population maximum within the area. The methodological approach described allowed the reconstruction of past natural and cultural events, and demonstrated how they can be causally intertwined.

References:

Oinonen M et al 2014. Event reconstruction through Bayesian chronology: Massive mid-Holocene lake-burst triggered large-scale ecological and cultural change. *The Holocene* 24(11): 1419-1427.