## DENDROARCHAEOLOGY OF SOVJAN - THE FIRST EARLY BRONZE AGE DENDROCHRONOLOGICAL ANALYSIS FROM THE SOUTHWESTERN BALKANS (ALBANIA)

<u>Andrej Maczkowski</u><sup>1,2</sup>, Matthias Bolliger<sup>1,2</sup>, Ariane Ballmer<sup>1,2</sup>, Maja Gori<sup>3</sup>, Petrika Lera<sup>4</sup>, Cécile Oberweiler<sup>5</sup>, Sönke Szidat<sup>6,2</sup>, Gilles Touchais<sup>5</sup>, Albert Hafner<sup>1,2</sup>

- <sup>1</sup> Institute of Archaeological Sciences, University of Bern, Switzerland
- <sup>2</sup> Oeschger Centre for Climate Change Research OCCR, Switzerland
- $^{
  m 3}$  Institute of Heritage Science, National Research Council of Italy (ISPC-CNR), Rome, Italy
- <sup>4</sup> University of Fan Noli, Korçë, Albania
- <sup>5</sup> UMR 7041 ArScAn, CNRS, Université Paris I Panthéon Sorbonne, Université Paris Nanterre, Paris, France
- <sup>6</sup> Department of Chemistry and Biochemistry, University of Bern, Switzerland Corresponding author's e-mail: <a href="mailto:andrej.maczkowski@iaw.unibe.ch">andrej.maczkowski@iaw.unibe.ch</a>

The archaeological site of Sovjan is situated on the north-western edge of the Korçë Basin, south-eastern Albania. The stratigraphy of Sovjan spans from the Neolithic till the Bronze Age. The thoroughly investigated stratigraphic sequence of the site makes it one of the most important prehistoric reference-sites in Albania and the surrounding region. During prehistory Sovjan was situated at various distances from the shores of the former Lake Maliq, which once filled the Korçë Basin, but was definitely drained after the 1940s. The waterlogged conditions on the site allowed for a high degree of preservation of wooden remains. From the two uncovered dwellings from layer 8, the Maison du Canal (House on the Canal) represents probably the best-preserved wooden structure from the Bronze Age Balkans. The predominant use of deciduous oak wood (Quercus spp.) is confirmed in this phase.

Through a combination of dendrochronological analysis and 14C-dates (wiggle matching), we were able to define a high-precision chronological placement of the layer with an end-date range falling between 2158 and 2142 cal BC ( $2\sigma$ ), the second half of the Early Bronze Age. It was confirmed that the two dwellings and the trackway were built in the same construction event, made of both worked and unworked wood. The utilized construction timber falls into various age-classes, suggesting variable exploitation of the woodland resources.

Additionally, through Bayesian modelling of the previously published 14C dates from the transitional layer 7, its chronological placement is narrowed-down to the 22nd - 20th century BC.

These new results suggest the contemporaneity of the processes in the Balkan 'hinterland' with those occurring in the wider Aegean region.

## Keywords

Dendrochronology, Radiocarbon dating, Wiggle-matching, Bronze Age Balkans, Wetland archaeology, Apsidal house

## Note/comment