

Investigation of wooden posts of Stone age pile dwelling in the East Lithuania

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Žemaitiškė-2 pile dwelling is located in the East Lithuania, close to Kretuonas lake. Based on findings the settlement is dated to the Late Neolithic (Girininkas, 1990). More than 300 wooden piles were sampled for anatomical and dendrochronological analysis during the 2000 – 2001 excavation season.

Wood species identification has revealed that ash (*Fraxinus excelsior* L.) was the main species used for constructions (57.1%). Ash was used for elements varying 3 cm to 14 cm in diameter. Alder (*Alnus* spp.) (11.3%) and hazel (*Corylus avellana* L.) (10.0%) were the next most frequently used species. Broadleaf species elements were C-14 dated to the Atlantic period. 6.0% of piles were made from *Pinus sylvestris* L., species typical to boreal coniferous forests. One pine element (VDU-167) was dated by radiocarbon to 8380 ± 60 BP, i.e. the Boreal period. Anatomical analysis of terminal ring has revealed that the largest part (almost 60%) of trees was felled in the beginning or in the middle of growth season.

Very narrow tree rings (mean value usually below 0.5 mm) are characteristic of the largest part of ash piles. Only few samples were older than 70 years. Samples containing 30 to 60 tree rings predominate. First attempts to crossdate ash piles revealed very individual patterns of tree growth. Spatial distribution of crossdated piles indicates several asynchronous overlying constructions.

References

Girininkas A. 1990: Kretuonas. Vidurinysis ir vėlyvasis neolitas [Kretuonas. Middle and Late Neolithic]. Lietuvos archeologija, T. 7.