



Archaeological birch tars and pitches in the Eastern Fennoscandia

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Abstract

Universally, archaeological tars and pitches are known from the Paleolithic until modern times. In most cases, the origin of the archaeological samples are determined as birch. In this presentation, we'll make a review of the archaeological birch tars and pitches in the Eastern Fennoscandia.

Birch tar is present in archaeological contexts of the Eastern Fennoscandia in most of the periods of prehistory, most markedly in the Middle Subneolithic, c. 3900-3500 calBC. However, birch pitches belong also to the inventory of the earliest settlers after the Ice Age, c. 8900-8600 calBC and several finds indicate its use during the Early Iron Age, c. 200-400 calAD. Historical documents tell about the manufacture and use of birch tar until 20th century. Geographically, archaeological birch pitches have been found throughout Eastern Fennoscandia, following the common occurrence of birch in the area.

The versatile use of birch tar and pitch includes e.g. hafting blades of stone and other materials and sealing cracks in the ceramic and wooden vessels. In recent times, birch tar has been used as a lubricant in cart wheels. Pre-treatment of the mass has left tooth marks in several birch pitches, hence the term "chewing gum" often used when referring to these bits. Sometimes also other imprints occur.

The archaeological birch pitches have been analysed with Gas Chromatography-Mass Spectrometry (GC-MS). Currently, birch pitch is considered as the most reliable radiocarbon dating material from the prehistoric contexts in the Eastern Fennoscandia.

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