Local-scale reconstruction of late Holocene forest dynamics and wood uses in the Băiuț region, Maramureș county (județ), Romanian eastern Carpathians: first results of charcoal analyses from forest soils and charcoal kiln remains

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This paper aims to present the first charcoal analysis results presently carried being as part of the interdisciplinary project called "FORETEXIL" funded from June 2017 by the CNRS commission for the interdisciplinary. This project focuses on four old growth forest sites located in the mining region of Băiuț, Maramureș county (județ), Romanian eastern Carpathians. One of these forests called Strâmbu Băiuț located in the Poiana Botizii valley has recently been classified a UNESCO World Heritage site as "Primeval beech forest" but it is in fact a mountain mixed forest dominated by Abies alba Mill., Fagus sylvatica L. and Picea abies (L.) H. Karts. The project proposes a diachronic and interdisciplinary diagnostic of these forests to implement predictive models (distribution, growth) and to help policies of local governance to protect and to use them in a sustainable manner. It is based on the combination of ecological, palaeoecological, geographical (SIG, remote sensing), sociological, archaeological and dendrochronological approaches. The long-term reconstruction at a local-scale of forest dynamics and land uses is notably based on charcoal analysis of charcoals from (i) forest soils and (ii) remains of charcoal kiln terraces. We propose for this EGU session a presentation of the field and sampling methodology implemented in two of the four sites investigated by the project, those located in the Băiuț valley. These two forest sites show currently a remarkable density of maturity attributes that are very surprising in an ancient mining area. And they show also remains more or less recent of human activities such as charcoal kiln sites. We want to present here the first results of charcoal analyses in to order to propose a first reconstruction of the history of these forests and to explain the reasons of their incredible maturity in an area strongly anthropised by the past.