

The archaeology of climate change: The Eastern Carpathians case

Carmen-Andreea BĂDĂLUȚĂ^{1*} and Gheorghe BĂDĂLUȚĂ²

¹*University of Suceava, Department of Geography and Stable Isotope Laboratory, Romania*

²*University of Suceava, Department of Geography, Romania*

* Corresponding author: Carmen-Andreea Bădăluță. E-mail: carmenbadaluta@yahoo.com

KEYWORDS: climate, archaeology, environment, Eastern Carpathians, Late Holocene

Current climate change is causing environmental transformation at an alarming rate, both at the local, regional and global level. This represents a major challenge for the social, economic and political systems. However, people have successfully faced and adapted to these changes since the past. The natural archives and archaeological records can provide the complex image of the interaction of climate, environment and human systems. The Eastern Carpathians shelter a multitude of natural archives like ice caves, tree rings, speleothems, lacustrine and fluvial sediments, peat bogs and/or guano deposits, which are hosting important proxy records of past climate and environmental changes. Also, the archaeological data indicate that the Eastern Carpathian represents the cradle of European civilization. In this study we will present climatic (e.g., temperature, moisture sources) and hydroclimatic (e.g. floods) changes in the Eastern Carpathian during the late Holocene and the interaction of the human system. The results of the past climate change, environmental transformation and human impact and mobility can provide valuable lessons for the future.

Acknowledgments

C.-A.B. was supported by a grant of the Ministry of Research, Innovation and Digitization, CNCS/CCCDI-UEFISCDI, project number, PN-III-P1-1.1-PD-2021-0744, within PNCDI III. G.B. was supported by Romanian National Authority for Scientific Research and Innovation, CNCS – UEFISCDI (grant number PN-III-P1-1.1-TE-2019-1628)