



Climatic conditions from northern Tuscany (Central Italy) during late etruscan times as revealed by speleothems

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Human activity has been a geologically recent, yet profound, influence on the global environment, and the Holocene has witnessed the transition from nature-dominated to human-dominated shaping of the Earth's landscape and atmosphere. This switch has been neither regionally homogenous nor necessarily progressive. During this period the Mediterranean region was the cradle for some of the world's oldest civilizations. During the same period, there were important climatic changes that, along with the human activity, transformed the landscape in a way that is difficult to disentangle. For better understanding the different roles of climate and human activity it is necessary to start from the analyses of restricted areas where archeological, palaeocological, geomorphological and paleoclimatological data can be merged into a single "holistic" view. Here, we present high-resolution paleoclimatic data from speleothems from Northern Tuscany and archeological data which show the different response of the environment between late Etruscan to Roman times. In particular, during this period a significant increase in flood intensity and recurrence is recognizable at ca. 2000 yr cal BP, which is in agreement with archaeological evidence. However, the ability of Roman society to control the environment probably mitigates the impact of this climatic phase.

References

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