

Abstracts  
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## **Attesting Neanderthal Dwelling Space Use: effects of human occupations in the Middle Palaeolithic record of Fumane cave (Verona, Italy) — ANDSU Project**

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The debate over Neanderthal subsistence patterns and behavioural aspects is a source of many discussions and scientific contributions. Research over the last ten years has produced new data on mobility, economic strategies and life-aspects of these ancestors, changing and enriching the comprehension of their material record. This project will address the identification of changes in Neanderthal subsistence patterns, across the late Mousterian sequence of Fumane cave (44-47.6 ka cal BP), one of the most important European key-sites (Verona, Italy).

ANDSU will attempt to overcome some of the current scientific limitations, by focusing on specific objectives: the identification of Neanderthal's spatial alteration patterns; the durability of their occupations; the site function; the temporality (or not) of site space and the lengths and number of occupation(s)/event(s). An integrated multidisciplinary research methodology will be harnessed to address these objectives and enhance the state-of-the-art. The project's innovative methodology will include bone refits, spatial archaeology, multivariate statistic techniques (k-mean cluster analysis; hierarchical classification methods; discriminant and point pattern analysis) and 3D model reconstructions. The experimentation of bones' 3D scan will be an excellent way to record and transfer scientific information. The ability to automate or semi-automate refits of large faunal assemblages would add new perspectives to zooarchaeological research methods.

According to current literature and the growing evidence emerging from many European sites, this project could provide useful data on the late Neanderthal groups. Moreover, it focuses on the crucial need to extend our knowledge on Neanderthal's behaviour and settlement patterns i.e., Fumane inhabitants' life-ways and their cultural relationships. ANDSU will serve as a foundation for further studies, enabling a collection of data that can be applied to the construction of populations models and eco-cultural niches of other European regions.

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