

## **The site of San Michele di Valestra: new evidence of Apennines exploitation during the Bronze Age (XV–XII century BC, N Italy)**

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### **Introduction**

The expansion and especially the collapse of the Terramare culture in the Po Plain (Northern Italy) between the Middle and the Recent Bronze Age (XVI–XII century BC) has been a subject of interest to archaeologists for a long time (Barfield 1994; Bernabò Brea et al. 1997; Cardarelli 2009). Their extensive network of trades and traffics had by no doubt a strong influence on the nearby mountain settlements in the northern Apennine, to which they were probably tightly related in lasting commercial relationships. Nevertheless, the nature and extent of Bronze Age human exploitation of the northern Apennine is poorly known, as well as the consequences of the disappearance of the neighbouring Terramare culture on these settlements. The principal reason for this knowledge gap is the scarcity of archaeological excavations in the area, with the few promising sites related to this period left largely ignored during the last decades. San Michele di Valestra, located in the territory of Carpineti (RE), is one of the few Bronze Age settlements investigated in the last decades, but the old studies (Bellodi et al. 1979; Tirabassi 1979) did not highlight the full archaeological potential of the site. In 2017 the archaeological sequence has been re-investigated in the framework of the SUCCESSO-TERRA Project (PRIN-20158KBLNB).

### **Materials and Methods**

The investigation of San Michele di Valestra was prepared following a multidisciplinary study combining tools from a range of different disciplines. The excavation phases were conducted by a team of geoarchaeologists, archaeologists, and palaeoenvironmental scientists. The data and samples collected in the field are currently subject to archaeological, geoarchaeological, geochemical, micromorphological, archaeozoological, and palaeobotanical studies, in a time framework to be obtained from radiocarbon dating of materials from key stratigraphic units. In parallel, palaeoclimatic studies are being conducted on speleothems recovered in the nearby caves, investigated in the past (Severi 1956), but never used as a palaeoenvironmental archive before.

### **Results and Discussion**

The excavation uncovered a sequence of planar levels corresponding to a well conserved stratigraphy (Fig. 1). In its upper part, a series of pedogenised levels lays above a deposit of decimetric to metric blocks. The latter is interpreted as a rock fall event that deformed the top of the lower portion of the archaeological sequence, dating to the Bronze Age occupation. In one

of the levels above the rock fall, archaeological materials dating to the Medieval Age are present.



Figure 1 - The archaeological section at the site of San Michele di Valestra.  
At the bottom, a stone pavement.

In the lower portion of the sequence, a series of stratigraphic units marks different phases of settlement. At least seven of these units can be recognised, each characterised by distinctive features of the sedimentary material and by the relative frequency of archaeological materials (mainly pottery fragments; subordinately the most frequent findings are faunal remains). In this part of the stratigraphy, archaeological negative structures (postholes) are also found, starting from the top of two of these units. Approaching the bottom of the stratigraphy, a stone pavement composed by decimetric sandstone slabs with a metric gap in the NE side of the site was found. Below, several units progressively more compact and poorer in archaeological materials are present; they possibly mark a proximity to the natural substrate, not reached during the excavation.

Archaeological and archaeozoological materials testify continuity of the frequentation of the site from the beginning of the Recent Bronze Age (though materials from the previous excavations predate the beginning of the settlement to the Middle Bronze Age; Bernabò Brea et al. 1997) up to the end of the Final Bronze Age. The transition between these two periods is not registered by any discontinuity in the stratigraphy, furtherly indicating uninterrupted activity of the site through and beyond the Terramare crisis.

## **Conclusions**

The site of San Michele di Valestra is probably the longest and best-preserved sequence for the Bronze Age in the Apennines, and offers the opportunity to understand the subsistence strategies in this environment. Evidence shows how the climate event accompanying the Terramare crisis had little influence on Apennine settlements: despite the spatial proximity (only about 20 km), in the site of San Michele di Valestra no hiatus or interruption in the archaeological sequence can be found relative to that event, in opposition to the substantial impact it had on the populations of the Po Plain. It can be speculated that adaptations to the peculiarities of the mountain environment were a key factor in the higher resilience of these settlements, and that a responsible strategy in the exploitation of the natural resources probably allowed their survival. The palaeobotanical analysis of the sequence and the palaeoclimatic studies on speleothems will explain the main climatic changes affecting the area and possibly shed light on the kind of response adopted by human groups to a changing environment.

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