

Archaeobotanical interpretation of a Middle Bronze Age (1914-1641 cal BC) cave site in south-western Sardinia (Italy)

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The Monte Meana karst cave is located in the Sulcis region, 5 km far from Santadi (SW Sardinia, Italy). The cave opens at 168 meters on the south-western side of Meana Mt. and the Murrecci river flows below. From the Middle Neolithic to the Middle Bronze age the cave has been inhabited. In the 1960s an alabaster quarry destroyed several archaeological strata. In the northern side of the cave, a small opening, here called 'grottino', was discovered under 1.50 m. of quarry's debris. Within it, an undamaged stratigraphy 1 m. depth and a sequence of four layers has been excavated in a 4mq area. At the top, a sandy layer, originated by quarrying activity, was also identified. Below, a dark brown deposit of 15-20 cm of thickness, characterized by several archaeological remains as pottery fragments, obsidian, copper slags, burnt bones, shells and a large amount of charcoals and carbonized seeds, has been investigated as well. In the underlying layers no archaeological remains have been found. The dark brown deposit (SU22) was protected and sealed by a recent sandy layer thus its sediment was uncontaminated. This fact has represented a lucky opportunity to identify some palaeoenvironmental features. Therefore, palynological and carpological analysis and characterization of palynofacies have been performed. The results bear out the presence of an open area around the site that included herbaceous plants and shrublands. Different agriculture practices as cereals and legumes cultivations are attested as well. The limited presence of pollen grains that are representative of arboreal plants during Middle Bronze Age is probably climate induced and linked to anthropic activities: for example, deforestation, burning for the cultivation of cereal crops, and the development of grazing areas.

