

## 6th YOUNG GEOMORPHOLOGISTS' DAY

Geomorphology for Society from risk knowledge to landscape heritage

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## GEOMORPHOLOGY AND SPIRITUALITY: FROM THE KARST MORPHOLOGY TO THE HERMITAGES AND THE TRISULTI CHARTREUSE (ERNICI MOUNTS, CENTRAL APENNINE)

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The Ernici Mounts are representative of the Italian Central Apennine carbonate platforms. The outcropping lithologies influenced the development of a karstic landscape. The wealth of karst cavities inspired the spirituality of many hermits, allowing the development of a monastic culture in the area. The peculiar cultural landscape of Trisulti describes very well the culture as the product of the interaction between human activities and natural environment. The analysis of the morphological features and the geosites inventory led to the recognition of the strict relationship between karstic morphology, hermitages and development of the monastic culture. The representativeness and rarity of some landforms, their high aesthetic attractiveness and the geomorphosites relationships with local history and culture clearly shows the link between geomorphology and spirituality.

Madonna delle Cese geomorphosite is represented by a karst cave whose wall side collapsed, due to fluvial erosion (Fiume river) at the base of the slope. The cave presents numerous organ pipes, stalactites and stalagmites. An hermit inhabited it and received the apparition of Our Lady in this place, starting the cult of Our Lady of the 'Cese' (livestock forage, in English). The huge size of the cave allowed inside it the construction of a chapel.

Trisulti Arch Rock geomorphosite is represented by a natural arch in the rock, crossed by the Fiume river. Along the valley, the pre-Holocene hypogean karst had organized an underground network of pressurized pipes, which shaped the typical fusiform and "keyhole" landforms due to hypogean karsism. The Fiume river during the LGM flowed at a higher altitude, cutting the limestones within the underground karst network was evolving. At the end of the last glacial period, the river cut the bedrock in-depth and captured the underground network. So, the arch in the rock is what remains of a pressure pipe of the ancient underground pattern. Just downstream this landforms, the Ponte dei Santi (Saints Bridge) hosted the local benedectine communities which here prayed together once a week, surrounded by a mystic natural landscape.

An itinerary connecting geomorphosites and cultural aspects is a useful enhancing support for the Trisulti cultural landscape, based on the link between geomorphology and spirituality. The itinerary "Hermitages and spirituality of Trisulti karstic landscape" goes along the Fiume river deep valley, in the core area of Ernici Mounts. The valley shows carbonatic slopes and lots of caves: here, the abundance of water and cavities inspired the spirituality of S. Domenico hermit, who inhabited the homonymous cave during the VI century a.C. S. Domenico started the monastic culture in the area founding the benedectine community in the S. Bartolomeo monastery, then it evolved in the Carthusian Monastery of Trisulti. Each stop of the itinerary shows one of the element of the chartreuse and landscape story described above.