Buca e Tecchia d'Equi's karst complex

location		
region	Tuscany	
province	Massa Carrara	
municipality	Fivizzano	
sector	Pizzo d'Uccello	
toponym/locality	Equi Terme	
interest		
scientific interest	hypogean karst phenomena	
	hydrogeology	
	palaeontology	
contextual interest	archaeological	
	cultural	
interest evaluation	representative	
level of interest	national	
conservation status		
characteristic/condition		fair
risk of natural deterioration		non-existent
risk of anthropogenic deterioration		medium



geological and environmental description

The karst complex of Equi Terme's caves comprises two different elements: "Buca" and "Tecchia", situated not very far one from the other, where Fagli valley to flow into Lucido's valley. "Buca" di Equi opens up at 258 m a.s.l., to the hydrographic left of Fagli stream, almost at the same altitude. The karst cavity is about 850 m long, parallel to a fault running in north (north-west)-south (south-east) direction, and it spreads into the cataclasites formed by friction between cherty Limestones and dolomite Marbles. It follows a mainly horizontal course, therefore the height difference is scarce (48 m). The cave is ramified into tunnels, corridors and halls, which at their end, rise to over 60 m. Karst galleries are embellished by stalactites and stalagmites, which often resemble columns, limestone flows, curtains and lace-like forms.

"Buca" di Equi is a perpetual karst spring of underground water, whose average flow rate is estimated around 250 l/s. During floods, spectacular and violent water outflows occur, reaching a maximum of 15 m³/s. Slightly to the north there is a second spring, called Barilla, which is the Buca's upper floodway and has an average flow rate of 200 l/s. The hydrogeological basin of Equi Terme's springs has not yet been identified precisely. It includes Pisanino massif and probably parts of Orto di Donna and Acqua Bianca's valleys, situated beyond the watershed. The catchment area probably measures 15 km², with a linear underground water course about 8 km long until the spring and a height difference of almost 1600 m.

Finally, Equi Terme's Tecchia is a hydrologically speaking neutral cavity which opens up in cherty Limestones, at 305 m a.s.l., to the left of Fagli stream. The cave resembles a rock shelter and is home to significant deposits of palaeontological, palaeoethhological and archaeological interest. Excavations, started in the 19th cent., brought to light stone tools from the Mousterian to the Neolithic, together with Würm and post-glacial faunas (wolf, dhole, jackal, leopard, lynx, ermine, marmot, beaver, ibex, chamois, etc.). The remains of *Ursus spelaeus* (Rosenmüller & Heinroth), which probably inhabited the cavity in alternation with Neanderthal hunters, are particularly numerous.

description of the level of interest

Several scientific interests are concentrated in Equi Terme's karst cavities complex, known as "Buca" and "Tecchia", starting from geomorphological, hydrogeological and palaeontological interests, not to mention the area's historical and archaeological value. Their importance is already significant when they are taken separately, but their synergic effect renders them highly interesting, at least at national level.