

location

region	Tuscany
province	Lucca
municipality	Stazzema
sector	Corchia
toponym/locality	Mt. Corchia

interest

scientific interest	hypogean karst phenomena
contextual interest	hiking (speleology) didactic
interest evaluation	representative
level of interest	international

conservation status

characteristic/condition	good
risk of natural deterioration	non-existent
risk of anthropogenic deterioration	medium

**geological and environmental description**

Mt. Corchia (1678 m) is different from the other Apuan landforms, because it hosts a large karst Complex, collectively called Antro del Corchia (Corchia's Cave). The geosite's complex morphology and pre-Quaternary origin, enable a deep study on the Apuan Alps' post-orogenic vicissitudes and morphotectonic history. Furthermore, recent studies on the Antro's speleothems radiometric dating showed the presence of one of the longest and most continuous Earth climate archives, which has been able to record climate variations in the Mediterranean area in the past million years.

The exploration history of the karst complex has ancient origins, since it dates back to 1840. Since then, thousands of Italian and foreign speleologists have explored the numerous underground ramifications of Antro del Corchia. It is thanks to them that the different explored parts are now joint, starting from the 14 natural entrances known so far.

The karst Complex consists of four different levels of large galleries. The upper three levels have a palaeophreatic origin (I, 1350-1500 m of altitude; II 1050-1250 m; III 800-1000) and the lowest is currently active (IV 450-650 m). Their origin dates back to stasis moments of the basic hydrological area and therefore to periods of relative isostatic balance of the Apuan Alps. The gallery levels of Antro del Corchia are superimposed one over the other and mainly linked by wells, predominantly of vadose origin. Unlike the galleries, they formed during rapid upthrust stages of the Apuan massif, occurred during the Quaternary (I-II, Early Pleistocene; II-III, Early-middle Pleistocene; III-IV, Middle Pleistocene).

The Antro's gallery dimensions, especially around 1200 m of altitude, required significant water income, incompatible with the current morphological structure. In the early development phases of the hypogean karst phenomena, Mt. Corchia probably collected most of Apuan water resources, acting as drainer. Between Late and Early Pleistocene, a large hanging internal basin, measuring 30 km² formed. It run parallel to the Apuan ridge axis, and it acted as the allogenic catchment area of Corchia's karst System. Witness to this ancient hydrographic/hydrogeological situation the conglomerate deposits of the upper galleries, where "exotic" non-metamorphic sandstone pebbles, coming from far allochthonous units, were found.

description of the level of interest

The importance of Antro del Corchia's karst Complex geosite transcend the national level, especially with regards to the geological and climate archive preserved in its intricate network of galleries and wells; not to mention the absolute value of its dimensions, measured both in length (about 53 km) and deepness (1187 m), and the historical contribution of the site to the development of speleological exploration.