



GOOGLE MAPS 38.834131, -3.735947



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Ayuntamiento de Almagro



Ayuntamiento de Granátula de Calatrava



Ayuntamiento de Valenzuela de Calatrava

# PROJECT CALATRAVA VOLCANOES GEOPARK. CIUDAD REAL

## VOLCANIC ALIGNMENTS OF THE SIERRA DE GRANÁTULA-VALENZUELA



- Magma
- Mercury
- Coal



Castilla-La Mancha



This alignment of volcanic buildings in the Sierra de Granátula de Calatrava-Valenzuela de Calatrava is without doubt an outstanding site in the territory of the “Geopark of the Calatrava Volcanoes. Ciudad Real”.

In the Sierra de Granátula-Valenzuela we find a wide distribution of volcanic buildings from south-west to north-east: La Cornudilla and an associated maar or hydrovolcanic edifice called La Carrascosa, Cuevas Negras, La Sima gas outlet, La Sima, the maar of Barranco Varondillo, Cerro Gordo, La Estrella, and the maar of Los Navazos. They are mainly made up of basalts and hydromagmatic deposits (Fig. 1).

The Cerro Gordo-Barranco Varondillo-La Sima complex stands out among all the eruptive edifices. This volcanic complex underwent several eruptive phases, more or less separated in time and with the emission of different volcanic materials. The cone, with its subrounded morphology, is one of those that best preserves its original shape. It consists of two craters open to the S, and altered by the later eruption that opened up the Barranco Varondillo maar.

Very fluid lava flows were emitted to the NW, reaching a distance of 2 km towards Valenzuela de Calatrava, and forming an extensive “negrizal” (black soil). The maar is a crater depression that broke part of the Cerro Gordo cone and the quartzite mountain range, generating quite important escarpments, reaching 1 km in diameter, and a current depth of more than 100 m. La Sima is a gas emission point linked to the igneous process, where there is a continuous monitoring station for volcanic gases (mainly CO<sub>2</sub>, H<sub>2</sub>S and radon), and a micro-seismicity network (Fig. 2).

It is listed by the IGME as a Site of Geological Interest –LIG TM146– “Volcano of Cerro Gordo, Maar of Barondillo and CO<sub>2</sub> emission point of the Plio-Pleistocene Sima” and -LIG TM147 “Plio-Pleistocene volcanoes of Cuevas Negras and La Cornudilla”.

The landscape is characterised by the “negrizales” over the lava flows and the volcanoes located in the highest part of the mountain range and by cultural elements from the Bronze Age as the Castellón de La Encantada.



Work derived from Mapa-LiDAR 2019 CC-BY 4.0 scne.es - Fig. 1



Fig. 2