





## FIRST DESCENTS

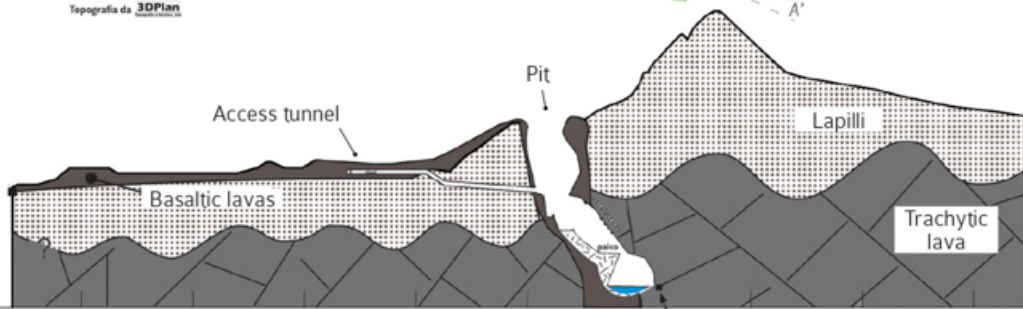
The first descent into Algar do Carvão was done in 1893 by Cândido Corvelo. In the second descent, in 1934, Didier Couto was responsible for drawing the first profile of the pit. Organized descents, only took place after August 18<sup>th</sup>, 1963, using a chair structure and a trousers like system with harnesses. This first group of enthusiasts to explore all of the pit, created on December 1<sup>st</sup>, 1963, the Association "Os Montanheiros".

## BUILDING THE TUNNEL AND THE STAIRCASE

On the weekends and holidays, from May 1963 to November 1966, the Montanheiros group dug a 35m (115 ft) tunnel into the inside of Pico do Carvão, which later on was enlarged and consolidated. In order to allow visitors to the interior, they constructed the first stairs, which were initially built out of wood. After opening the connection road to Algar do Carvão, on December 1<sup>st</sup>, 1968, it was finally open to public, being this the official registered opening date. In 1970 the electrification of the cave was done, improving the quality and safety of visitation.



## Interior plan





**Algar do Carvão** is a remarkable volcanic vent, classified as a Natural Monument due to its rich and rare heritage value. In the beginning of its formation, the basaltic magma tried to reach the outside through the hard layer of the existing trachytic rock, without success. In these attempts, the pressure and heat moulded the vaults and walls. Eventually, the magma found some fragile spots on the side walls, which allowed it to finally break through to the exterior. In its final stage, the magma retreated back to the magmatic chamber, creating this amazing volcanic structure that we now call "Algar do Carvão". From these events, several pieces of basalt can still be seen as layers covering the trachytic walls, having



most of them collapsed over time, due to gravity and tectonic movements. The whitish coats visible on the inside walls, are the tracks left by the mineralized water while making its way down until it drips, creating amorphous silica stalactites, and big orange stains of iron oxides. Amongst other formations, we can also find layers of glossy black rock, covering the

walls, and creating hanging blades in some specific areas (lava stalactites).

The opening of the vent to the exterior has a width of 15 to 20 meters (49-65 ft). Going down an abrupt slope of 45 meters (147 ft) we find a ramp of 18 meters (59 ft) and again a slope that ends in the crystal waters of the lake. The total depth is about 90 meters (295 ft), being the tunnel located in its first quarter. The lake is sustained by rain water that goes in through the vent and infiltration processes, resulting in a constant dripping. Adding to that, there are also some small underwater springs. The depth of the lake changes a lot during the year, it may reach more than a dozen meters (39 ft) by the end of winter, and practically vanish in a dry summer. The bottom is very irregular due to past collapses.



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## FLORA AND FAUNA

The light limits the distribution of plant species. The walls around the opening are partially covered by different liverwort species, mosses, ferns and bushes. Several of these are endemic to the Azores, like the laurel, the heather and the ilex. In the deeper areas, with almost no light, algae, moulds and diatoms make its appearance. Amongst the cave adapted fauna, we find a beetle, endemic to this Island, a centipede and two spider species endemic to the archipelago. In the case of vertebrates, it is possible to find some birds that take shelter in the upper parts of the vent.



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## NOT ALLOWED TO THE VISITOR:

- Pick, capture or retain any animal or plant species
- Retrieve any geological samples or other sediments
- Deposit residues of any kind
- Walk outside the marked paths
- Smoke inside the pit
- Any other actions that may disturb the ecological balance of this Natural Monument

CONTRIBUTE FOR THE PRESERVATION OF A HERITAGE THAT IS ALSO YOURS



Any human activity of economic, scientific or leisure character requires behaviours and attitudes which guaranty full respect for the location.

Air view of the Pico do Carvão

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