

THE STROMBOLI VOLCANO

There is no show more fascinating than the one put on by an active volcano, a small point on the map where the earth lets us see what happens in the perennially burning-hot forge hidden in its depths. Each volcano has molded the landscape around it and modifies it continuously, sometimes with demonstrations of extraordinary power, and always with a continuous exchange between the power that emerges from the heart of the earth and the nature surrounding it.



The Aeolian Islands are an archipelago born of volcanic energy, which has made these parts of land set in the Mediterranean rise from the sea, and has never interrupted the dialogue with the nature around it, that has been in a continuous process of change for millennia. There are various indications of the volcanic nature of these islands, such as the gaseous emissions in Vulcano or near Panarea, but it is Stromboli above all that continues to offer mankind the grandiose spectacle of an active volcano.

Stromboli shows its vitality in a characteristic manner, with constant activity that is in fact called "Strombolian," characterized by the succession, at intervals of 10-20 minutes, of explosions that launch streaks



of incandescent lava, lapilli and ash into the air, up to a height of hundreds of yards. The explosions originate in mouths situated inside the three main craters, which are aligned with one other, at an altitude of about 2,300 feet in the high part of the Sciara del Fuoco.



Besides the explosive activity which we can define as "ordinary," the craters are periodically affected by other types of explosions: "major" explosions and "paroxysmal" explosions. Major explosions take place an average of twice a year, causing the fall of heavy materials (blocks of rocks and volcanic bombs) on the higher part of the mountain. "Paroxysmal" explosions, on the other hand, have a cycle of several decades, and can launch heavy materials at greater distance, down to lower altitudes. Periodically, every 10 to 20 years, the volcano pours lava flows into the Sciara del Fuoco.

The eruptive phenomena of the volcano can destabilize the slope of the Sciara del Fuoco, provoking landslides that involve the parts of the structure both above and below the sea level. The landslides, depending on their volume, can trigger tsunamis with effects along the coast of Stromboli itself, Panarea, and even the other Aeolian Islands, and Calabria and Sicily. There have been five tsunamis in the past 100 years: in 1916, 1919, 1930, 1944, and most recently, in 2002.

VISITING AN ACTIVE VOLCANO

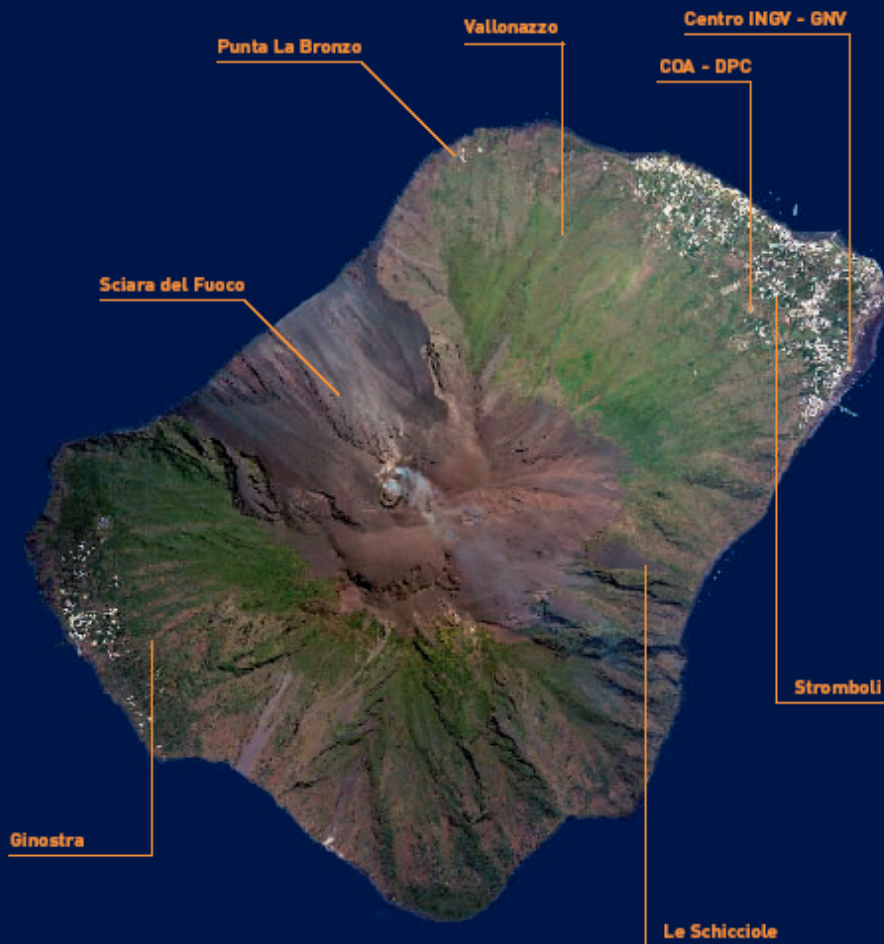
A volcano is not a calm and completely stable corner of the earth, but rather a permanent workshop of nature, where the "work" is always going on and

exceptional events can take place at any time.

Visitors to the island should be conscious of this situation, and be informed about the main phenomena that can occur at Stromboli, and the rules of behavior to be followed when the volcano makes its vitality felt in a more impulsive than normal manner.

The 2002 tsunami and the paroxysmal explosion in 2003 reminded everyone that the volcano, although usually "mild," can be dangerous at times. For this reason, in recent years the Civil Defense has built and maintained a 24-hour monitoring system that continuously analyzes the behavior of the volcano, to detect any possible signs of variation in its condition, utilizing cutting edge technological and scientific instruments.

The C.O.A. - Advanced Operational Center - of the Civil Defense, which is active throughout the year, is the local terminal of a series of monitoring networks managed by the National Institute of Geophysics and Volcanology (INGV), and by the University of Florence. You can visit the C.O.A. to get a clear idea of the national community's strong commitment to constantly watching over the volcano and being able to intervene immediately, if necessary, to bring the island's inhabitants and visitors to safety. Currently, the monitoring networks make it possible to reduce the likelihood that the danger of the volcano causes damage to people. However, although this is possible for the landslides along the Sciara del Fuoco, it may not be so for the major explosions and the paroxysmal explosions. In fact, the customary persistent activity of the volcano puts it in a constant state of "ordinary criticality," such that explosive phenomena that involve areas outside of the craters are always possible, and in the current state, unpredictable.



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Eolie - Stromboli island

Centro Funzionale Nazionale



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INGV, Università di Firenze-DST, ...



Centro Operativo Avanzato di Stromboli