



Mount Etna and Stromboli Eruption

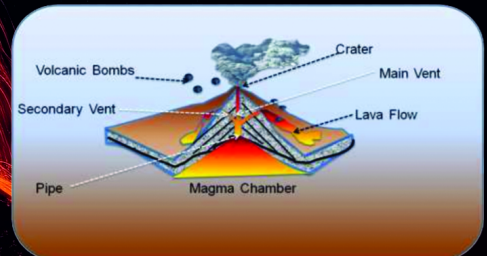
Source: TOI

Recently, volcanic eruptions at [Mount Etna](#) and [Stromboli](#) in Italy have caused the eruption of hot ash and lava from it.

- **Mount Etna** is located on the island of **Sicily**, in the southern part of Italy.
 - It is the highest peak in Italy South of the Alps.
 - Europe's **most active volcano is also one of the largest volcanoes in the world.** Furthermore, it is the highest mountain on a Mediterranean island and the **most active stratovolcano globally.**
 - **Stratovolcanoes** are **tall, conical volcanoes** built up by **layers of hardened lava, ash, and rock** fragments.
 - They are typically found above **subduction zones**, and they are often part of **large volcanically active regions**, such as the **Ring of Fire** that frames much of the Pacific Ocean.
- **Stromboli (also a stratovolcano) is a small island in the Tyrrhenian Sea, off the northern coast of Sicily, Italy.**
 - It is one of the most continuously active volcanoes in the world, also known as "**Lighthouse of the Mediterranean.**"

VOLCANOES

A volcano is a vent or a fissure in the crust from which lava (molten rock), ash, gases, rock fragments erupt from a magma chamber below the surface



Types: On basis of -

Periodicity of Eruption:

- **Active volcano:** Recently Erupted
- **Dormant Volcano:** Potential for eruption, no imminent signs
- **Extinct:** No recent eruptions, low possibility in future

Nature of Eruption:

- **Hawaiian:** Calmest types (low gaseous content)
- **Strombolian:** Formation of large gas bubbles in magma
- **Vulcanian:** More explosive
- **Plinian eruptions:** Magma's volatile gases rise via a narrow conduit
- **Icelandic:** Often build lava plateaus

Shape of Volcanoes:

- **Shield volcanoes:** Composed of basaltic lava, low slope
- **Cone volcanoes (Cinder Cones):** Most abundant
- **Composite cones (stratovolcanoes):** Formed by layers of diverse materials.

Volcanic Features:

Extrusive :

- **Crater:** Cone-shaped vent for magma
- **Caldera:** Large, crater-like depression
- **Volcanic Plateaus:** Leveled areas from fissure eruptions

Intrusive:

- **Batholiths:** Central core of a volcanic mountain.
- **Dyke:** Vertical intrusion cutting across country rock bedding.
- **Sills:** Tabular intrusions along sedimentary bedding.
- **Laccoliths:** Magma injection along horizontal sedimentary bedding.

Minor:

- **Geysers:** Underground water above 100°C, powered by magma, results in powerful eruptions with steam and diluted minerals.
- **Hot Springs:** Heated water flows quietly along fault zones.

Distribution of Volcanoes:

- **Subduction zones (Circum Pacific Belt)**
- **Divergence zones (Mid Atlantic Ridge)**
- **Intra-plate oceanic volcanism (Hawaiian chain)**
- **Mid-continental belt and volcanoes in Mediterranean region**

Volcanoes in India:

- No volcanoes in Himalayans
- Barren Island (Only active volcano)

Products of Volcanic Eruption:

- **Gases:** H, C, O, S, N, CH₄, NH₃
- **Solid:** Pyroclastic materials
- **Liquid:** Lava

Read More: [Volcanism](#)

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