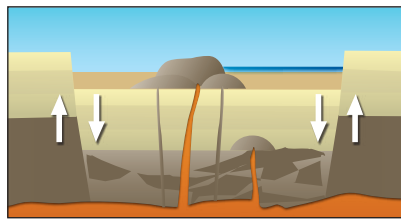


**Description**

- Tarawera is one of a number of dome volcanoes in the Okataina Volcanic Centre which lies east of Rotorua.
- The Okataina Volcanic Centre is a caldera which last collapsed about 64,000 years ago. Since then eruptions from many vents in the caldera floor have built dome volcanoes and partly filled in the hole left by that collapse.
- Tarawera is the site of NZ's largest eruption during the last 500 years.
- The volcano is 1111m high and is surrounded by a number of lakes created or altered by the 1886 eruption



▲ Tarawera.

◀ **Caldera volcano** - volcano that has collapsed into itself, often filling with water to form a lake.

**Maori Name**

- *Tarawera* means 'burnt cliff' or 'peaks'.

**Features**

- It has 3 dome shaped peaks with a central fissure created by the 1886 eruption.
- The 'Buried Village' of Te Wairoa has been excavated from the rocks, ash and boiling mud which buried it in 1886.

**Type**

- It is a dome volcano inside an active caldera.

**Cause**

- It was created by subduction of the Pacific Plate below the Australian Plate.
- The Earth's crust is stretched and thinned in the entire Taupo Volcanic Zone.

**Eruptive History**

- Eruptions which created Mt Tarawera began about 18,000 years ago .
- The eruptions which formed the Okataina Caldera began around 400,000 years ago.
- The rhyolite lava flows which form the summit domes of Tarawera's three peaks were formed about 800 years ago.
- The time between eruptions in the Okataina Volcanic Centre is long (700 to 3000 years) but eruptions are 100 to

10,000 times larger than those of cone volcanoes.

**Eruptive material from the 1886 eruption**

- These include pyroclastic flows (scoria, mud and steam) and falls (ash).
- Caldera volcanoes usually erupt rhyolite magma very explosively but the 1886 eruption produced basalt which is less viscous.
- Basalt magma produces scoria when it explodes. Scoria is darker and heavier than the pumice produced by rhyolite magma.
- When heat from the magma created superheated steam in Lake Rotomahana the lakebed rock fragmented and produced fine 'Rotomahana Mud' which spread over a wide area and was heavy enough to collapse nearby buildings.

**Last eruptive activity**

- The 10th June 1886 eruption began at 1.30am and lasted about 5 hours.
- The eruption blasted a 17 km long rift across the mountain top of Tarawera, through Lake Rotomahana and into the Waimangu Valley area.
- The world famous Pink and White Terraces were destroyed.

- More than 100 people were killed in villages near the mountain.
- The eruption was heard as far away as Blenheim and ash affected the atmosphere as far south as Christchurch.

**Other Volcanic Hazards in the 1886 eruption included:**

- earthquakes
- lightning storms and fireballs
- fissures along faultlines in the surrounding area
- strong winds
- suffocating gases and ashfall
- darkness during daylight hours as the eruption cloud moved north

**Monitoring**

- Okataina Caldera is monitored by 8 seismographs, 7 continuous GPS stations, lake monitoring and levelling.

