Historic volcanic activity

McSaveney et al., 2009a

Tarawera

Lying 24 kilometres south-east of Rotorua, Tarawera is a curious-looking mountain, with several large domes and a broad, flat top. Its distinctive profile formed during eruptions around 1314 AD. Early Māori and the Europeans who arrived in the 1800s did not realise that Tarawera was an active volcano. In June 1886, however, it came to life in a violent one-day eruption – the deadliest in the history of New Zealand settlement.

The famous terraces

In the 1880s, tourists were drawn to the thermal regions of Rotorua and Tarawera. A stellar attraction was the Pink and White Terraces, on the shores of Lake Rotomahana. Their tiers of delicately tinted silica and cascading hot pools were considered one of the wonders of the world.

An omen

In the days before Mt Tarawera erupted there was an increase in hot spring activity, but otherwise there were no warning signs. Eleven days before, however, Māori and Pākehā tourists reported a phantom Māori war canoe sailing across Lake Tarawera, and surges in the water.

The eruption

At Te Wairoa village, 7.5 kilometres from the terraces, people were woken after midnight on 10 June 1886 by a series of increasingly violent earthquakes. Around 2 a.m., a fissure through Ruawāhia Dome on Mt Tarawera erupted, and by 2.30 a.m. the craters along the summit were venting fountains of glowing scoria and a cloud of ash up to 10 kilometres high, through which intense lightning flickered. At 3.20 a.m. the explosions spread. Craters were blasted open on the south-west side of the mountain and through Lake Rotomahana and the Waimangu area. A 17-kilometre rift spewed steam, mud and ash. The eruptions were over by about 6 a.m.

Night of a thousand stars

Rumblings from the Tarawera eruption were heard as far south as Blenheim, in the South Island. In the Waikato and Bay of Plenty, people woken by the explosions saw distant flashes on the horizon. Aboard the *Glenelg*, moored in the Bay of Plenty, Captain Stephenson saw hovering over the land 'large balls of fire, which suddenly appeared, and then broke into a thousand stars.' ¹

Te Wairoa



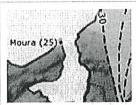
Lake Rotomahana and the White Terrace



'The phantom canoe: a legend of Lake Tarawera'



Tarawera erupting, 1886



Devastation caused by the Tarawera eruption (1st of 2)



Sheltering in Te

At Te Wairoa, people went outside to watch Tarawera erupt, but soon had to retreat indoors. Many sought shelter in the Hinemihi meeting house and McCrae's Hotel. When wet mud began to fall, the roof and upper floor of the hotel gradually gave way under the weight. More than 60 people found safety in the sturdy house of the tourist guide, Sophia Hinerangi. When the home of the local schoolmaster collapsed, three people escaped and took refuge in a hen house.

Mud skies

The Tarawera eruption was unusual – it initially ejected molten basalt scoria. However, the rising magma mixed with groundwater and several lakes, turning the water to steam, and causing powerful explosions that pulverised the land and blasted it out as huge volumes of hot mud.

Wairoa (1st of 3)



Tarawera landscape after the eruption (1st of 2)

The aftermath

Soon after daybreak, rescue parties were dispatched. They found that the settlements of Te Tapahoro, Moura, Te Ariki, Totarariki and Waingongongo had been completely destroyed, or buried by falling hot mud. At Te Wairoa 15 were dead, but many had survived, huddled inside the stronger buildings. Four days after the eruption the high priest Tūhoto Ariki was dug out alive from a house, but died several weeks later. The official death toll was put at around 150, but it is more likely between 108 and 120 people were killed.

The landscape around Rotomahana and Tarawera was stripped of vegetation. Thick mud and ash blanketed hundreds of square kilometres of land, and large cracks crossed the region. The Pink and White Terraces had vanished, reduced to dust and fragments of sinter.

The site of the terraces became a crater over 100 metres deep. Steam eruptions continued in the crater for several months, but within 15 years it filled with water, forming a new Lake Rotomahana, much larger than its predecessor. The chain of craters at the Waimangu end of the rift became the site of many new geothermal features, including Waimangu Geyser, the largest in the world, and New Zealand's largest hot spring, Frying Pan Lake.

Footnotes

1. Bay of Plenty Times, 12 June 1886, p. 2. > Back

Biographies



Algernon Phillips Withiel Thomas, 1857–1937



William Blomfield, 1866-1938



James Hector, 1834–1907



Sophia Hinerangi, 1830/34?-1911



Mita Taupopoki, 1845/1846?-1935



Te Keepa Te Rangi-pūawhe, ?-1905



Alfred Patchett Warbrick, 1860–1940

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