

Geology of Karioi Volcano

You may remember the launch at the Centre in 2020 of Oliver McLeod 's geological map of Mount Pirongia and the accompanying text *Geology of the Pirongia Volcano*. A few weeks ago, Dr McLeod completed a further major project with the launch, at Raglan, of the first geological map of Mount Karioi with the accompanying text *Geology of Karioi Volcano*, again published by the Geoscience Society of New Zealand.

Karioi lies at the north-western tip of the Alexandra Volcanic Group, a chain of extinct basaltic stratovolcanoes, domes and smaller vents formed about 2.5 million years ago, above a tear in the subducted Pacific Plate. The development of Karioi took place over 180,000 years. A complex sequence involving summit and flank vents, lava flows, ash falls, cone growth and collapse events have been recorded and mapped in a fashion similar to that used in McLeod's earlier report on Mount Pirongia, showing how Karioi evolved from explosive ash rings and scoria cones into a large stratovolcano. The map unit descriptions are illustrated with a rich selection of clearly interpreted, informative photographs.

The final section of the accompanying text, entitled "Whakapapa of Karioi" provides a useful, less-technical summary for beginners about the story of each of the seven map units.

An important feature of this phase of McLeod's research was the involvement in the project of Tangata Whenua from the Whaingaroa (Raglan) district. Although the development of Karioi as a landform was largely complete when the area was first populated 800 years ago, those who have lived in the shadow of Karioi for generations have a rich association with the mountain where oral histories tell of ancient pā sites, other places where people lived, gardened and significant events occurred. As a result, the names of many of those sites are now included on the geological map.

Like its sister publication about the geology of Mount Pirongia, the geological map and accompanying text, *Geology of Karioi Volcano* is of outstanding quality. At its launch to a packed audience in Raglan, Oliver McLeod gave an interesting and informative outline of his research since 2020.

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