

Ancient oral tradition in Central Java warns of volcano–earthquake interaction.

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Merapi volcano in Central Java, Indonesia, is one of the most hazardous volcanoes in Southeast Asia, yet humans have inhabited the area around Merapi since ancient times. As a consequence, a rich but complex volcano-related folklore has developed. The local legends describe the interaction of the spirit kings that reside within Merapi volcano and the Queen of the South Sea, who resides in the Indian Ocean near Parangtritis, some 50 km SSE of the volcano¹. The royal palace in Yogyakarta is located half-way between Merapi volcano and Parangtritis beach and is believed to balance these opposing forces. In 2006 and 2010, Merapi erupted explosively and on both occasions, earthquakes shook the region and caused the eruptions to grow more intense. Notably, the 2006 earthquakes clustered along the Opak River fault system to the south of the volcano that reaches the sea at Parangtritis beach, the fabled residence of the Queen of the South Sea. We argue that local legends were used to rationalize the dynamic interaction between the volcano and the frequent regional earthquakes through the rich oral traditions and ceremonies in the districts around Merapi. These legends can thus be thought of as comprising an ancient hazard catalogue with respect to local eruptive behaviour and seismic phenomena. This realization is now finding increasing use in communicating volcanic hazard knowledge to diverse local resident and interest groups, including local primary schools. This expanded curriculum has led to measurable improvements in hazard awareness and crisis preparedness with school children in the affected areas around Merapi, which will likely reduce casualties in times of future volcanic crisis.

¹Troll V.R., Deegan F.M., Seraphine N. (2021) Ancient Oral Traditions in Central Java warns of volcano-earthquake interaction. *Geology Today*, Vol 37: 100-109. <https://doi.org/10.1111/gto.12350>