

Dangers around Sorrento

Kirsty Gray takes a look at the risks of living near an active volcano.

This year's GIRO Convention is being held in Sorrento on the Amalfi coast of Italy. Looking out from Sorrento over the Bay of Naples gives a sense of peace and tranquility, with no hint that the African and Eurasian tectonic plates meet below it or of the dangers lurking behind. However, Mount Vesuvius, regarded as one of the most dangerous volcanoes in the world, lies only nine kilometres east of Naples.

So, while you sip limoncello at the drinks reception at the Hilton Sorrento Palace, spare a thought for the destructive power of the volcano nearby!

Explosive facts

Vesuvius is best known for the eruption in AD 79 which led to the destruction of Pompeii and Herculaneum. It is estimated that the eruption lasted around 19 hours and released about four cubic kilometres of rock and ash over a wide area. 1,150 remains of bodies have been recovered in and around Pompeii and remains of about 350 people have been found at Herculaneum, although this is thought to be a fraction of the total number of fatalities. Such massive eruptions are called Plinian (after the famous Romans Pliny the Younger, who wrote a surviving eye-witness account, and his uncle Pliny the Elder who died because of the blast). They appear after millennia of inactivity, previous examples being around 1,660 BC and 6,000 BC.

Less massive but still very destructive eruptions occur after centuries of inactivity. The most recent was in 1631 and killed more than four thousand people in what was then a sparsely populated area. The then Viceroy of Naples had a marble inscription made warning "generations to come" of what

happened and (using an early form of actuarial projection!) saying that "the present illuminates the future with its light", that the same event has happened "twenty times since the sun has appeared", and that each time it is "followed by great extermination for any who hesitate".

Eruptions have taken place over thirty times since AD 79 – most of them being of the less severe Strombolian type. The latest was in 1944 when several villages were destroyed along with 88 aircraft from a US bomber group.

Since 1944 there have been no eruptions, but that does not indicate that the danger has gone. Indeed, the potential for the volcano to erupt suddenly and cause widespread damage and disruption to the 3,000,000 people now living close by is very serious: this has been the longest length of time without an eruption in the last 500 years.

The area around the upper part of Vesuvius has been turned into a National Park to ensure no further building can take place, and financial

incentives have been put in place for people to move away from the area. However, the Osservatorio Vesuvio in Naples closely monitors the seismic activity, and emergency evacuation plans are in place for the 600,000 people living in the most dangerous area. The plan assumes a warning period before the eruption of at least two weeks. Showing the accuracy of the Viceroy of Naples warnings, it has been estimated that if the 1631 eruption did occur without any form of prior evacuation 400,000 people would be killed in less than five minutes.

If you are interested in visiting Vesuvius, coaches can take you to within 1,000 metres of the summit and from there you can take the spiral walkway around the mountain to the crater at the top and stunning views of Naples and the bay below.

The archaeological areas of Pompeii and Herculaneum, designated UNESCO World Heritage sites, are amongst the most popular tourist sites in Italy and are only a short trip from Sorrento. But you might just like to check the level of seismic activity before you go!