

Volcano on the doorstep

When a volcano began to erupt just 30 kilometres from Reykjavík, Benjamin Hennig, a professor of geography at the University of Iceland, couldn't resist a visit

When I got the offer to join the University of Iceland, the prospect of adventure made it too tempting to resist. In autumn 2016, 15 years after my first visit to Iceland on a geography field trip, I moved to Reykjavík and started exploring. With each passing year the likelihood of witnessing a volcanic eruption increased. I can't deny a certain degree of anticipation and hope that it would happen. That it would happen so close to Reykjavík was rather unexpected.

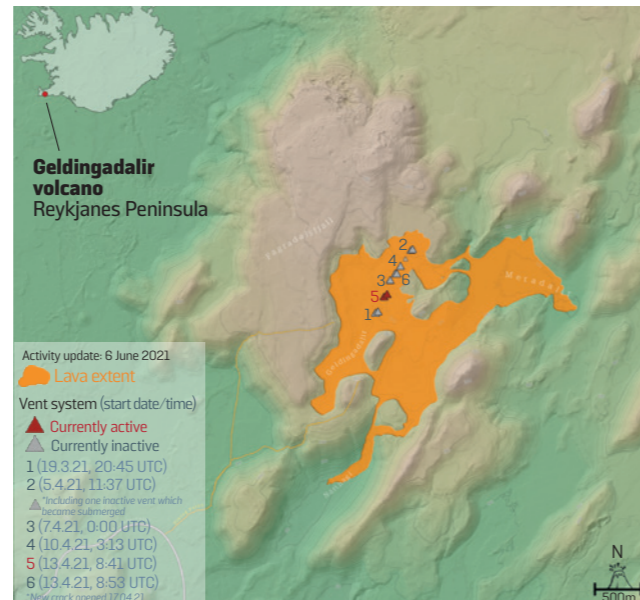
It all started on 19 March 2021. Following a series of over 50,000 earthquakes on the Reykjanes peninsula over the course of around three weeks, a volcanic eruption started in the Geldingadalir valley at the Fagradalsfjall mountain plateau. The volcano is part of the Krýsuvík-Trölladyngja volcanic system in southwest Iceland, situated approximately 30 kilometres from Reykjavík. This allowed me to take regular visits to the eruption site and to document changes.

Standing so close to an active volcano and to flowing lava proved a mesmerising experience. In the early days of the eruption you could get as close as a few metres away from the vent, and even weeks later there were always active lava flows accessible. The sounds were fascinating. The early phase offered the sound of constantly erupting lava, like the churning waters of the sea – soothing and calming. Later, spurts reached hundreds of metres into the air and the soundscape changed to roaring and rumbling explosions. The flowing streams of lava possessed a seductive calm. Moving so slowly, they seemed innocent with their captivating glow. The real danger of this eruption is invisible – gas. A tickle in the throat is a reminder to call it a day.

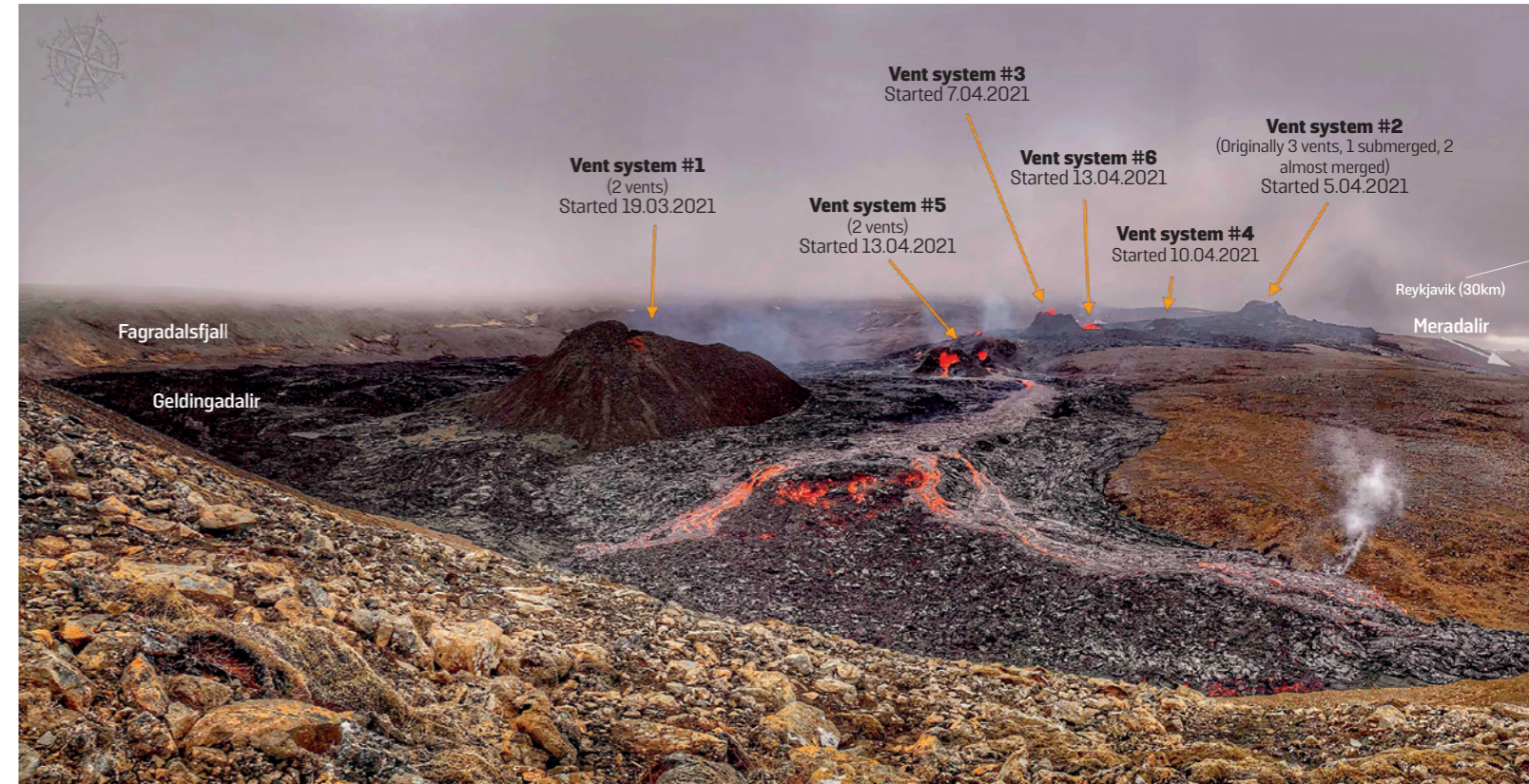
Still ongoing, the eruption is the first in this part of Iceland for about 800 years and might mark the beginning of a period of increased volcanic activity in the area. Thankfully, this eruption happened in a relatively remote valley with no

risk to people or major infrastructure. The main valley of Geldingadalir (valley of the geldings) saw six vent systems open up during the first weeks of the eruption. Lava started to fill the space and eventually flowed eastwards, first into neighbouring Meradalir (valley of the mares) and later into an unnamed valley and from there eventually down into Nátthagi valley.

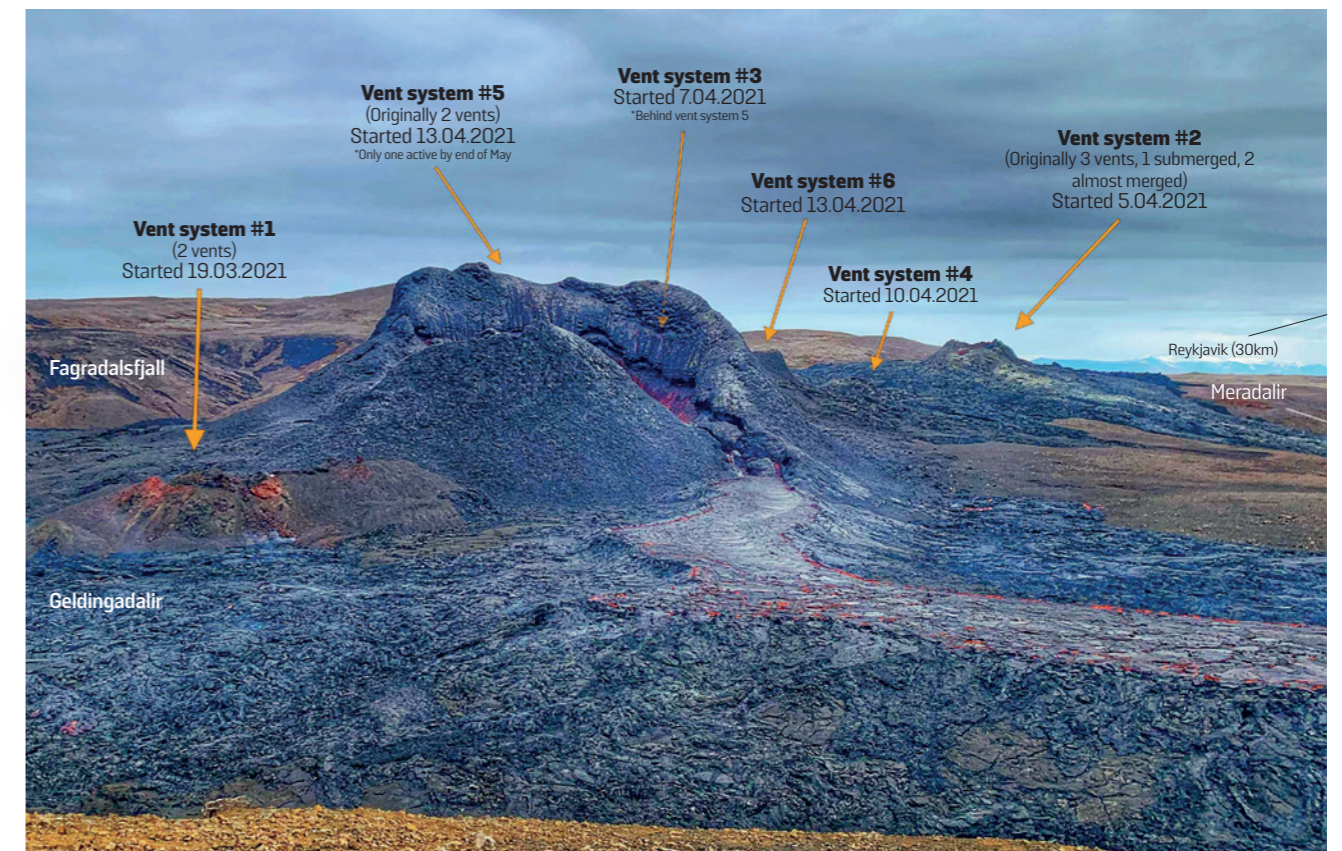
More than 100,000 visitors have been counted on the hiking paths to the volcano. It has been a privilege to be counted among them. Being so close and being able to document the volcano's progress first-hand has been a unique opportunity – a geographer's dream. ●



Taken on 26 March 2021: This image shows the volcano in the early days of the eruption when only one vent had opened and lava was confined to the Geldingadalir valley. Later, attempts were made to prevent lava from flowing into Nátthagi valley to the south which leads to the coastal road and a main fibre optic cable connection. Parts of the barriers were quickly overrun and in late May the lava flowed southwards, making its way to the ocean



Taken on 14 April 2021: At this time six vent systems had opened and were all actively releasing lava which began to flow into the neighbouring valleys to the east



Taken on 17 May 2021: The third phase of the eruption was characterised by a single remaining active vent which discharged more lava than all the others put together. The vent turned into a geyser-style volcano with a lava fountain erupting every few minutes. The highest fountains were estimated to reach more than 200 metres and could even be seen from the capital. The original vent system to the left is hardly visible any more due to the increase in lava levels in the valley



On the 14 April the site of the eruption turned into a valley of fire. Six active vent systems had opened and were all actively releasing lava. The left vent in this image was one week old; the one on the right had started just a day before this picture was taken



Another view from the 14 April, showing lava erupting from the vent system that went on to remain the only active one by the third phase in May. Here, the crater is still in its infancy and not yet as large as the original vents

Taken one week into the eruption on the 26 March, the two original vents were growing slowly but steadily with a constant stream of lava flowing out of them, seen here from the air. The silver appearance of the main flow is caused by thermal effects on the surface of the still active lobes



On the 17 May the eruption was exhibiting geyser-style behaviour, spurting high every few minutes and adding the largest volume of lava discharge to date, with 12.4 cubic metres per second. By early June, 54 million cubic metres of lava had been released



On 8 April fresh snow covered the area surrounding the volcano which is just visible at the back. Members of the search and rescue team were kept busy, advising visitors to take extra care due to increasing levels of gas

The view from the road out of Reykjavik, heading south towards the Fagradalsfjall mountain. On this day the gas plume from the eruption had visibly risen up and was heading north-east. Keilir, a pleistocene subglacial volcano, is seen to the left

