

Jun 2024 || Vol. 7 || No. 1
ISSN: 2610-3540

On the cover



Living memory

In this image, captured by Sigurgeir Jónasson in 1973, a church stands lit from within before the striking backdrop of the eruption of Eldfell, on the island of Heimaey (Iceland).

In this issue, Rhian Meara and colleagues explore the lasting impact of the eruption on those who experienced it.

[Read more on page 361](#)

Image credit: Photo archive of Westman Island, Iceland / Sigurgeir Jónasson. The image has been cropped and rotated. Cover design ©Volcanica [2024]

◆ Articles ◆

Wilding, J. D. and Ross, Z. E. "Insights on the state of stress in the mantle beneath Pahala, Hawai'i"
doi: [10.30909/vol.07.01.0119](https://doi.org/10.30909/vol.07.01.0119) 1

Naranjo, J. A., Romero, J., Contreras, J. P., Orihashi, Y., Scott, K., Haller, M. and Sumino, H. "Rapid growth and catastrophic destruction events of Planchón Volcano, Southern Andes", doi: [10.30909/vol.07.01.2149](https://doi.org/10.30909/vol.07.01.2149) 21

Bonechi, B., Polacci, M., Arzilli, F., Romero, J., Fellowes, J. and Burton, M. "Magma residence time, ascent rate and eruptive style of the November ash-laden activity during the 2021 Tajogaite eruption (La Palma, Spain)"
doi: [10.30909/vol.07.01.5165](https://doi.org/10.30909/vol.07.01.5165) 51

Furst, S., Pinel, V. and Maccaferri, F. "Dynamics of magmatic intrusion: what can we learn from the comparison of analog and numerical models?" doi: [10.30909/vol.07.01.6787](https://doi.org/10.30909/vol.07.01.6787) .67

Carrara, A., Burgisser, A. and Bergantz, G. W. "Numerical simulations of the mingling caused by a magma intruding a resident mush" doi: [10.30909/vol.07.01.89104](https://doi.org/10.30909/vol.07.01.89104) 89

Shamloo, H. and Kent, A. "An appraisal of the observed crystallinities of volcanic materials"
doi: [10.30909/vol.07.01.105115](https://doi.org/10.30909/vol.07.01.105115) 105

Harris, M., Hosseini, B., Myers, M. and Bouley, L. "Reconciling petrologic magma ascent speedometers for the June 12th, 1991 eruption of Mt. Pinatubo, Philippines"
doi: [10.30909/vol.07.01.117133](https://doi.org/10.30909/vol.07.01.117133) 117

Stix, J., Miller, C. and Liu, Y. "Accurate hindcasting of explosive eruptions at Whakaari, New Zealand: Banded tremor precursors for future forecasts"
doi: [10.30909/vol.07.01.153164](https://doi.org/10.30909/vol.07.01.153164) 153

Jenkins, A., Rust, A. and Biggs, J. "The relationship between large earthquakes and volcanic eruptions: A global statistical study" doi: [10.30909/vol.07.01.165179](https://doi.org/10.30909/vol.07.01.165179) 165

Reddin, E., Ebmeier, S., Bagnardi, M., Bell, A. F. and Espín Bedón, P. "Craters of habit: Patterns of deformation in the western Galápagos" doi: [10.30909/vol.07.01.181227](https://doi.org/10.30909/vol.07.01.181227) .. 181

Continued on next page.

Editors: Jenni Barclay, John Browning, Katy Chamberlain, Corentin Caudron, Oryaëlle Chevrel, J. Maarten de Moor, Pierre Delmelle, Jacqueline Dohaney, Amy Donovan, Susanna Ebmeier, Lynne Elkins, Gareth Fabbro, Jamie Farquharson, Lis Gallant, Helen Elizabeth Gaunt, Alison Graettinger, Claire Harnett, Michael Heap, Adrian Hornby, Ery Hughes, Kayla Iacovino, Mike James, Adam Jeffery, Kyoko Kataoka, Ben Kennedy, Ulrich Küppers, Alexandra Kushnir, Oliver Lamb, Elena Maters, Sami Mikhail, Chiara Montagna, Julie Morin, Emma Nicholson, Engielle Paguican, Tom Pering, Pete Rowley, Nick Varley, Jérémie Vasseur, Fabian Wadsworth, Alan Whittington, Rebecca Williams

Eibl, E. P. S., Karmacharya, S., Shevchenko, A. V., Walter, T. R. and Hersir, G. P. "Video camera and seismic monitoring of water bulge explosion at Strokkur Geysir, Iceland" doi: 10.30909/vol.07.01.229245	229
Barnes, S., Thordarson, T., Hill, R. E., Perring, C. S., Dowling, S. E. and Godel, B. "The Moinui Flow on Mauna Loa: transport and deposition of an olivine crystal cargo in a compound basaltic lava flow" doi: 10.30909/vol.07.01.247272 ...	247
Grismer, M. and Waters, L. "Temporal variations in storage conditions of the post-collapse rhyolites, Valles Caldera, New Mexico (USA)" doi: 10.30909/vol.07.01.303333	303
Meara, Rh., Árnason, A., Elias, O., Hallbergsdóttir, H. and Hafsteinsson, S. "Magmatic Memories: Eldfell, 1973" doi: 10.30909/vol.07.01.361403	361
Vásconez Müller, A., Bernard, B. and Vasconez, F. J. "Near-real-time ash cloud height estimation based on GOES-16 satellite imagery: A case study of the 2022–2023 eruption of Cotopaxi volcano, Ecuador" doi: 10.30909/vol.07.01.405419	405

◇ **Methods** ◇

Toth, N. and MacLennan, J. " MinDet1 : A deep learning-enabled approach for plagioclase textural studies" doi: 10.30909/vol.07.01.135151	135
Wieser, P. E. and DeVitre, C. " DiadFit : An open-source Python3 tool for peak fitting of Raman data from silicate melts and CO ₂ fluids" doi: 10.30909/vol.07.01.335359	335

◇ **Reviews** ◇

Galetto, F., Dualeh, E., Delgado, F., Pritchard, M., Poland, M., Ebmeier, S., Shreve, T., Biggs, J., Hamling, I., Wauthier, C., Gonzalez Santana, J., Froger, J.-L. and Bemelmans, M. "The utility of TerraSAR-X, TanDEM-X, and PAZ for studying global volcanic activity: Successes, challenges, and future prospects" doi: 10.30909/vol.07.01.273301	273
--	-----

Editors: Jenni Barclay, John Browning, Katy Chamberlain, Corentin Caudron, Oryaëlle Chevrel, J. Maarten de Moor, Pierre Delmelle, Jacqueline Dohaney, Amy Donovan, Susanna Ebmeier, Lynne Elkins, Gareth Fabbro, Jamie Farquharson, Lis Gallant, Helen Elizabeth Gaunt, Alison Graettinger, Claire Harnett, Michael Heap, Adrian Hornby, Ery Hughes, Kayla Iacovino, Mike James, Adam Jeffery, Kyoko Kataoka, Ben Kennedy, Ulrich Küppers, Alexandra Kushnir, Oliver Lamb, Elena Maters, Sami Mikhail, Chiara Montagna, Julie Morin, Emma Nicholson, Engielle Paguican, Tom Perring, Pete Rowley, Nick Varley, Jérémie Vasseur, Fabian Wadsworth, Alan Whittington, Rebecca Williams