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Northumbria brings Antarctica's unseen world to the screen

A virtual performance exploring beneath Antarctica's frozen surface will take place this month, combining scientific research from Northumbria University with poetry and electronic music.

'Under the Ice' is a 30-minute collaboration between Northumbria University's Cold and Palaeo-Environments research group, poet Katrina Porteous, and composer Peter Zinovieff.

The performance will take listeners on a journey beneath Antarctica's surface

to discover vast mountains, valleys, lakes and volcanoes, and hidden landscapes.

Aimed at adults with limited scientific knowledge, the performance will explore Northumbria's cutting-edge research, including the remote sensing techniques used to investigate Antarctica's secret landscape and understand more about the movements of the Pine Island Glacier and Thwaites Glacier, which are crucial to our understanding of possible future climate change.

The performance was inspired by Katrina Porteous's desire to learn about climate change through the work of scientists at Northumbria. Katrina's poetry responds to research by [Dr Kate Winter](#), Vice Chancellor's Research Fellow in the Department of Geography and Environmental Sciences.

Explaining Dr Winter's research, Katrina said: "The research centres on iron-rich sediments, carried by glaciers from inland areas of the Antarctic to the Southern Ocean, which are thought to encourage the growth of microscopic phytoplankton.

"These help to reduce carbon dioxide in the Earth's atmosphere. As ice sheets thin in response to climate change, sediment delivery and production could increase. It was really uplifting to hear this positive story amid so much bad news about the climate."

Peter Zinovieff's music for *'Under the Ice'* is derived from real sounds from Antarctic glaciers, including Kate Winter's own recordings, and samples contributed by sound artist Chris Watson and Australian Antarctic Arts Fellow, Associate Professor Philip Samartzis, RMIT University, Melbourne.

'Under the Ice' was created as part of [NUSTEM's Exploring Extreme Environments](#) project at Northumbria University, supported by the Science and Technology Facilities Council.

NUSTEM is based within Northumbria's Faculty of Engineering and Environment and seeks to encourage and inspire the next generation of science, technology, mathematics, and engineering students through a wide variety of educational events. As part of this project, Katrina worked with NUSTEM to provide a template for use in primary schools to help children learn about science through poetry. It was also announced at the 2021

Society of Authors Awards this month that Katrina is a recipient of one of this year's Cholmondeley Awards for a body of work in poetry.

'Under the Ice' premieres on 23 June, 7.30pm – 9.00pm, and will be hosted on Zoom by the Wordsworth Trust, Grasmere, as part of their contemporary poetry reading series. The series will discuss how poetry can cross borders to challenge, delight and inspire us, and includes an open mic session which participants can sign up for. [Book your ticket here for just £5.](#)

Five free tickets are available for the session for those experiencing financial hardship that would otherwise not be able to attend. This is on a first come first served basis with no questions asked about your situation. Please email [Hannah Catterall](#) for more information.

[Find out more about the event here.](#)

[To find out more about Northumbria's Mathematics, Physics and Electrical Engineering department and the courses available, visit this webpage.](#)

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