Polar Zero

Wayne Binitie

This exhibition injects an artistic and cultural dimension to the climate negotiations at the Conference of the Parties of the UN Framework Convention on Climate Change (COP26). Its message is one of hope and optimism.

At a time of accelerating global warming, rapid melting of glaciers and rising sea levels Polar Zero invites us to pause and reflect on humanity's impact on our past, present and future climate.

1765 – Antarctic air – a gift to the future

Polar Zero is a fusion of art, science and engineering. Together Royal College of Art PhD student **Wayne Binitie**, **British Antarctic Survey**, and global engineering and design firm **Arup**, created a symbolic gift to the future.

A cylindrical glass sculpture encases an ampule of genuine Antarctic air from the year 1765. Gases, including carbon dioxide and methane from the pre-Industrial Revolution era, capture a pivotal moment in Earth's history.

Over two hundred and fifty years ago Scottish inventor James Watt improved the steam engine to reduce waste and cut fuel costs. This innovation sparked a chain reaction that changed the world.

1765 is an elegant 'gift to the future' that symbolises humanity's ability to invent technologies that make a better world. It reminds us also that progress can bring hidden consequences.

Locked deep in Antarctic ice is a unique archive of the Earth's history reaching back 800,000 years. Tiny bubbles of air that were trapped by falling snow reveal the astonishing rate of increase in atmospheric carbon dioxide since the start of the Industrial Revolution. This knowledge is vital for helping us adapt to a changing world.

Ice Core – frozen in time

Polar Zero identifies the British Antarctic Survey's ice-core laboratory as a repository of scientific and cultural data that reflects humanity's engagement with, and intervention in, the Polar Regions.

Experience the sound of ancient air bubbles popping as an Antarctic Peninsula ice core emerges from an insulated tube. As it melts and drips away it marks, in an artistic sense, the fragility of the polar ice.

The artist incorporates audio recordings of gases escaping from ice cores into an ambient soundtrack that evokes the passage of time, place and memory. Polar Zero invites you to take a moment to reflect on what our past means for the present and future climate. As you move around this exhibition you will become an integral part of the story.

These technically challenging pieces are supported by Arup's expertise and creativity, from predicting how long it will take the ice to melt with complex dynamic computer models to finding the right materials to encapsulate the air sample.

Antarctic ice is a nexus of historical information. It inspires and facilitates the production of a contemporary artwork at a time of accelerating climate crisis.

Ice Stories

Ice Stories draws on personal anecdotes, memories and oral testimonies from the national and international scientists and experts whose lived experiences of the Arctic and Antarctic facilitate and enable their narrative futures to be written.

Find out more about the hidden stories of scientists and artists who inspired Polar Zero here:

Royal College of Art
Postgraduate Art & Design

British Antarctic Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

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