

Studioantarctica: Embedding Art in a Geophysics Sea Ice Expedition

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Here we report on a six year collaboration developing new modes of communication using the interconnections between art and science in the context of climate science. We use the polar regions as a context for the collaboration in part because it holds a special place in the imaginations of many people. Not only is it a part of the planet likely to be never visited by the viewer but there is a growing understanding of the role the poles play in the planet's climate.

Motivated by the potential for cross-disciplinary outcomes, an artist was embedded in a science expedition to the fast sea ice around Antarctica. Both the science and art focused on ice crystal formation. Most elements of the art process had three phases, pre, during and post – as with the science. The environment largely dominated the progress and evolution of ideas. The results were multi-material and multiscale and provide a way to entrain a wide range of audiences, while also making non-didactic connections around global climate – and producing art.

This built on a continuum of approaches where we have evolved from consideration and debate about synergies in approach, through to cross-fertilisation of ideas, shared labour, trial remote controlling and finally shared field experimentation. Certainly this is ground-breaking in an academic sense, but beyond this, it is proving a powerful attractor in engaging primary school students. In a class room setting we describe our work and experiences, both separately and in combination, as well as our recent experiences seeking to bridge the disciplinary divide. We then ask the students to contribute to the process of creating science-inspired art. There are complementary perspectives on the evolving process, their associated communication strands and how this drives a suite of communication and education outcomes.

The need to understand how these systems are changing as the human species modifies its planet is urgent. Science around the connection between ice and ocean is central to this. But does Art-Science aid in this? Can art “improve” the science? What is certain is that the present initiative is about something other than “more scientifically robust art” or “improved artistic representations of science and scientists”.