

BACKSCATTER

THE VOYAGE OF THE *INVESTIGATOR*

Richard Arculus Pete Harmsen Annalise Rees Charles Tambiah James Batchelor



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Makers' Space, University of Tasmania, Cradle Coast Campus
BURNIE - 18th March - 17th April
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Academy Gallery, University of Tasmania, Inveresk Campus
LAUNCESTON - 24 April - 26 May

INTRODUCTION

How inappropriate to call this planet Earth when it is clearly Ocean.

Arthur C. Clarke

Ocean and Earth abruptly converge at Australia's sub-Antarctic Heard and McDonald Islands. These active volcanoes are isolated sentinels of rock and ice lying in the Furious Fifties of the Southern Ocean. During January-February 2016, Australia's Marine National Facility, the research vessel *Investigator*, transported 60 souls into the tempestuous seas around these islands. The purpose of the voyage was to test a hypothesis, specifically that fluids cooling active undersea volcanoes transport iron into the ocean, iron that phytoplankton need to metabolize. Phytoplankton are important because they produce about half of the oxygen in Earth's atmosphere; in other words, they're responsible for every other breath we take.

The bulk of the team aboard *Investigator* comprised scientists, students, science support staff, and ship's crew. The scientists and students spanned a range of oceanographic disciplines: biology, chemistry, geoscience, and physics. Yet thanks to *Investigator's* ample berths, five artists were also able to join the expedition, an opportunity unique to my 32 blue-water research voyages. My own experiences on eight long campaigns in the Southern Ocean have been profoundly inspiring, and I hoped the same would be true in stimulating the imaginations of both the artists and the scientists.

A ship is worse than a gaol. There is, in a gaol, better air, better company, better conveniency of every kind; and a ship has the additional disadvantage of being in danger.

Samuel Johnson

The Southern Ocean, especially its Furious Fifties, is a hostile environment, renowned for the stormiest weather of the global ocean. Even in summer, hurricane force winds exceeding 64 knots and wave heights greater than 10 meters are not uncommon. However, the timing of our *Investigator* expedition benefited

from a strong positive Southern Annular Mode (related to El Niño–Southern Oscillation, or ENSO), one characteristic of which is contraction of the band of intense mid-latitude westerly winds towards Antarctica. Thus around Heard and McDonald Islands we mostly experienced the fringes of major storm systems, the 'eyes' of which passed well to the south of us. Nevertheless, on occasion inclement weather forced us to either suspend over-the-side operations or shift operations into the lee of the islands. Such weather also resulted in some injuries, renewed bouts of seasickness for susceptible sailors, and disturbed sleep for nearly everyone. In particularly heavy seas, photographer Pete Harmsen was flung across the bridge of the ship, destroying his primary camera and injuring his face. Fortunately, he recovered quickly and was able to borrow equipment to continue documenting the voyage.

Putting 60 people – most of whom have never met previously – together on a ship for two months in a hostile environment constitutes an uncontrolled social and psychological experiment. Because *Investigator* ship time is relatively expensive (~\$100,000 day) as well as highly competitive, work was round-the-clock, 24/7 for the two-month voyage. Diversions were severely limited compared to life ashore, and maintaining morale challenged the Captain and Chief Scientist. Artists are a novelty on a research vessel, adding an unknown component to the social and psychological experiment. Integrating the artists with the scientific team and ship's crew was important for the success of the expedition. These artists understood this and pursued their artistic objectives at the same time as throwing themselves into scientific research and ship operations.

Art is born of the observation and investigation of nature.

Marcus Tullius Cicero

Richard Arculus, a professional colleague, served as Co-Chief Scientist and senior geologist on the voyage, and was a lead investigator on multiple grants that supported the expedition. Scientifically, he led the rock dredging program and mentored students in describing the recovered rocks. Possessed

of boundless energy and apparently minimal sleep requirements, he combined his artistic, scientific, and leadership roles with verve and skill, and was ever vigilant in pursuing compelling photographic opportunities of the islands, Southern Ocean avifauna, and ship panoramas. As a result, the world has the first complete marine photo geological record of the McDonald Islands as well as the most thorough marine photo geological documentation of Heard Island ever produced, including ongoing eruptions from the summit of Big Ben.

James Batchelor is a performer, choreographer, and filmmaker whose practice combines movement and visual arts, inspiring critical thought and reflection on our world. My first encounter with James's work was *Island*, an immersive installation addressing interactions between the body and the environment through dance, architecture, and sound. *Island* motivated me to contemplate the complexities of environmental isolation experienced on long research voyages, and to invite James on the expedition. He pursued thoughtful, corporeal examinations of the dominantly hard, cold, steel architecture of *Investigator*, unyielding but constantly moving with the sea. Concomitant with his artistic pursuits and leading fitness sessions for all comers, James choreographed scientific shipboard water sampling, involving numerous hydrocasts and many scientists and students.

Pete Harmsen is a freelance cameraman commissioned by Australia's Marine National Facility to document the expedition, the first maximum endurance cruise of *Investigator*. With a background in mainstream television media, Pete downplays his artistry, yet the diverse body of work he produced during the voyage generates ideas arising from his imagination and technical skills. Using imagery – moving and still – and sound, Pete interrogated both research and research support activities. The islands and Southern Ocean provide a powerful visual backdrop to his narratives, and nature often dictates and dominates the conversation. Pete was omnipresent in documenting all actions, blending seamlessly with his shipmates and feeding hungry media ashore. Additionally, Pete and Richard pushed and complemented each other in their extraordinary still photography.

Annalise Rees is a visual artist intrigued and inspired by the unknown, in particular the Southern Ocean and Antarctica. Following a studio tour, I invited her to be IMAS's first artist-in-residence, working in the new IMAS exhibition space. Recognising that Annalise and James shared artistic themes I introduced the two artists. This led to the collaborative project *Deepspace* aboard *Investigator*, funded by the Australia Council for the Arts. Annalise was never without her sketchbook, indoors or out, exquisitely recording and interpreting myriad and dynamic human, wildlife, oceanic, geologic, and glacial activities and processes. She led popular drawing classes that were open to all shipmates, designed the popular t-shirt commemorating the voyage, and pitched in with the ship's crew for several days to better understand their work and perspectives.



RV *Investigator*, photo credit: Pete Harmsen, MNF

Charles Tambiah is a photographer and researcher working at the nexus of science and art. He develops multidisciplinary processes and content centered on photography that are intended to foster public engagement with science. Aboard *Investigator*, Charles worked closely with the geologists, casting his professional environmentalist eyes on and cataloging rock and biota samples recovered from the seafloor. He compiled content for studio-lab artwork abstraction and expansion following the voyage, including production of photographic base layers of rocks recovered by dredging and of accidental biotic bycatch. Charles and Richard, having collaborated closely previously, continue to advance photographic techniques for documenting submarine rocks and biota, and have created a visual dialogue between their work for this exhibition.

Art enriches science; science enriches art. Millard F Coffin

The new IMAS headquarters on the Hobart waterfront is an iconic research and education edifice incorporating a prominent, dedicated exhibition space. In my role as the inaugural Executive Director of IMAS, I emphasised the mutual enrichment of art and science in my formal remarks delivered at the building's launch event two years ago. We are fortunate to live in a time when both art and science – especially marine and Antarctic science – are flourishing in Tasmania, an environment that cross-fertilises ideas and endeavours, and genuinely fosters imagination and creativity. I firmly believe that art and science are highly complementary, and that art-science collaborations can produce a powerful synergy that increases knowledge and understanding of the world around us and our place in it.

Art-science collaborations that commenced with the *Investigator* voyage continue to evolve, as do the creative effects for both artists and scientists arising from the collaborations. It will be interesting to see both in this exhibition, mounted just over one year after the conclusion of the expedition, and into the future how these art-science endeavours unfold and enrich.

We scientists strive to understand how our complex planet works and how it is changing, and to convey our findings to policymakers and the general public for the benefit of society and civilisation. The IMAS tagline is *translating nature into knowledge*; this exhibition serves that goal by communicating our Southern Ocean research to audiences unreachable via scientific publications or conferences. Kudos to the five artists responsible for this exhibition, and I very much look forward to future art-science collaborations.

Professor Millard F Coffin
Chief Scientist, RV *Investigator*
Voyage IN2016_V01
“Heard Earth-Ocean-Biosphere Interactions”
Institute for Marine and Antarctic Studies (IMAS)
University of Tasmania



Richard Arculus is a Professor Emeritus at the Research School of Earth Sciences of the Australian National University. He has spent an academic career in the study of volcanoes and the products of their eruptions, particularly submarine examples over the past 30 years, and uses photography as an essential tool in both field and laboratory settings.

Richard Arculus
Heard Island: Panorama from North looking South, 2016
Ink on canvas, 33.5cm x 150cm

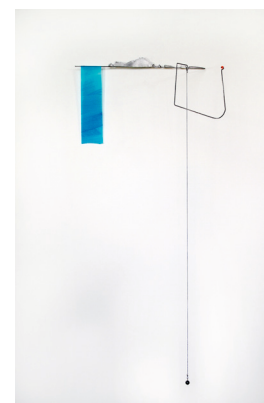
Pete Harmsen is a Tasmanian freelance cinecameraman / photographer who was fortunate to document the voyage of RV *Investigator* to Heard and McDonald island in 2016. The images in this exhibition aim to capture a slice of this truly unique and incredibly remote environment, and the science being done to understand climate change.

Pete Harmsen
Phoebe of McDonald Island, January 2016
Digital photograph, 50cm x 40cm framed



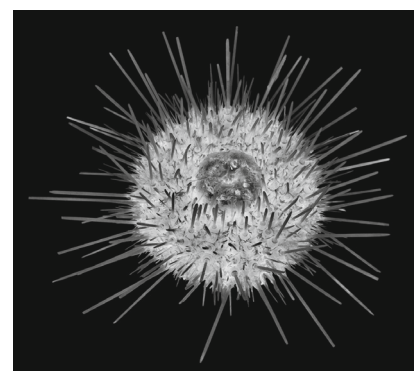
Annalise Rees is a Tasmanian based visual artist currently completing a PhD at the Tasmanian College of the Arts, University of Tasmania. Her work is informed by historical practices of exploration, navigation and cartography. With a particular focus on the maritime environment, Annalise has been investigating how physical and metaphorical manifestations of the unknown drive searching and inquiry for both artist and explorer alike.

Annalise Rees
From Here to There IV, 2017
Zinc plate, synthetic thread, lead weight, bead, music wire, acrylic on drafting film
53cm x 16cm x 19cm



Charles Tambiah is a science photographer and science-art researcher at the Australian National University. He integrates his academic background in conservation geography with a research-led arts practice. His field-based career in over 20 countries brings a unique cross-cultural lens and an indigenous filter to his visual narratives.

Charles Tambiah
Ocean floor to ship deck to black velvet: Sea urchin, 2016/2017
Ink on canvas, 30cm x 30cm



James Batchelor is a choreographer based in Melbourne. His award winning works combining dance performance and visual arts have been presented by major festivals and venues around the world in theatres, galleries, museums and public contexts.

James Batchelor
Deepspace, 2016
Digital image, 29.7cm x 45.5cm
Cover photo credit: Charles Tambiah

CURATOR'S NOTES

Early in 2016 a colleague forwarded an article to me about a remarkable scientific voyage. Aside from being engaged by the science and the coincidence of the eruption of Big Ben during the voyage, I wanted to find out whether rumours of participating artists were true.

After writing to Professor Coffin to make enquiries, I received an exciting reply which read something like: *Yes, there were artists, and there were five of them!*

I was hooked and the challenge was then to establish whether the artists wanted to exhibit, and whether our communities would

find the work engaging. Soon after this, I met with Annalise Rees who acted as the spokesperson for the artists.

We discussed the project at length, and I could not have been happier with the quality of the work or the sheer diversity represented. It was evident that the voyage had made a profound impact on the artists.

Jump-forward 6 months, and the exhibition planning was at a stage where I could present it to Ten Days on the Island, to be considered for inclusion in their 2017 festival program. The quality of the work and the importance of

the cross-disciplinary, collaborative approach was appreciated immediately, and here we are.

I believe this to be an important exhibition which provides meaningful insight into how science and art can thrive in shared territories. I congratulate the artists, the scientists and the crew, and in particular Professor Mike Coffin, who had the vision to make this voyage of the Investigator very special indeed.

Joanna Gair BAVA hons

Arts and Public Programs Coordinator,
University of Tasmania, Cradle Coast Campus



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