

HASSEG Conference 2017

**DEPTHS AND SURFACES:** understanding the Antarctic region  
through the Humanities and Social Sciences

July 5 - 7

Institute for Marine and Antarctic Studies  
University of Tasmania, Hobart

<http://antarctica-haseg.com/biennial-conference-2017/>



UNIVERSITY of  
TASMANIA

 **IMAS**  
INSTITUTE FOR MARINE & ANTARCTIC STUDIES

## About the Conference

The "Depths and Surfaces" conference is organized jointly by the History Expert Group and Humanities and Social Science Expert Group (HASSEG) of the Scientific Committee on Antarctic Research (SCAR). Since 2013, the two groups have held biennial conferences: the first at the British Antarctic Survey, Cambridge; the second at Colorado State University, Fort Collins, in 2015; and the third this year in Hobart. Each conference aims to bring together humanities, creative arts and social science researchers interested in the Antarctic, fostering a community of scholars who can act in concert with natural scientists to address the issues that face the Antarctic region. In the intervening years, both groups organize sessions at the SCAR Open Science conferences.

Each biennial conference focusses on a different theme. In 2017, our theme is "Depths and Surfaces: Understanding the Antarctic Region through the Humanities and Social Sciences." This theme is intended to work on many levels. Among other things, it encourages us to expand our thinking beyond the continental to consider the marine environment of the far south – something that speaks to our location at the Institute for Marine and Antarctic Studies and at an Antarctic 'gateway' port. It draws attention to the three-dimensional nature of the ice at a time when reports of increased glacial melt are appearing almost daily, and ice core sampling is helping us to understand long-term climate patterns. And, taken metaphorically, it challenges us to go beyond surface readings of a place which, in the past, has often been uncritically labelled a "last wilderness" or "continent for science" and considered outside the purview of the HASS disciplines.

We are delighted by the range of papers that will be presented at "Depths and Surfaces." The conference brings together around eighty speakers from six continents. They come from a wide variety of disciplines: anthropology, archaeology, architecture, gender studies, geopolitics, geography, history, law, literary studies, media studies, performing arts, psychology, sociology, visual arts, and several others. We hold that, while scientific efforts are crucial, understanding the Antarctic region – past, present and future – requires contributions across the disciplinary spectrum, so it is very encouraging to see this community of scholars coming together at a pivotal time in the region's and the planet's history.

We encourage all conference-goers to attend the HASSEG and History Group joint meeting on the final day of "Depths and Surfaces", to contribute to the groups' direction. New members are always welcome. And we hope we will see many of you next year at the SCAR Open Science conference, 15-26 June in Davos, Switzerland, where we will be joined by Arctic HASS scholars, or at the next HASSEG/History conference in 2019.

## Conference Keynotes

Distinguished Professor Anne Noble, Massey University  
Professor Sanjay Chaturvedi, Panjab University  
Professor Timothy Stephens, University of Sydney

## Conference Organizing Committee

Convenor: Assoc. Prof Elizabeth Leane (School of Humanities/IMAS, University of Tasmania)  
Administrator: Dr Annalise Rees (IMAS, University of Tasmania)

## Advisory Committee:

Dr Ben Maddison (School of Humanities and Social Inquiry, University of Wollongong)

Dr Jeff McGee (Faculty of Law/IMAS, UTAS)

Dr Steve Nicol (Adjunct Professor, IMAS, UTAS)

Miranda Nieboer (Postgraduate Candidate, School of Humanities/IMAS, UTAS)

Hanne Nielsen (Postgraduate Candidate, School of Humanities/IMAS, UTAS)

Dr Carolyn Philpott (Conservatorium, UTAS)

## About the History Expert Group

Formed as an Action Group within SCAR in 2004, and becoming an Expert Group in 2011, the History EG acts as a meeting place for scholars working on the history of the Antarctic from diverse perspectives, with an overt focus on involving junior scholars and fostering collaboration among Group members. The Expert Group's meetings help facilitate the sharing of research materials, including newly-collected oral histories and newly-released archival sources. The geographical diversity of the Group's membership permits material from around the globe to be accessed, from North and South America to Africa, Australasia, Europe (eastern and western) and Russia. The group is chaired by Cornelia Lüdecke. The History EG organizes sessions and panels at the biennial SCAR Open Science conferences as well as biennial conferences together with HASSEG. For more information, visit <http://www.scar.org/historygroup/historygroup-tor>.

## About HASSEG

The Humanities and Social Sciences Expert Group (HASSEG) brings together researchers in the humanities and social sciences with an interest in the Antarctic region. HASSEG was formed as an Action Group under the umbrella of the Scientific Committee on Antarctic Research (SCAR) in 2010 by a group of international scholars with the aim of fostering new approaches to Antarctic research grounded in the humanities and social sciences. In 2014, it became a SCAR Expert Group. The Expert Group has an international executive committee that provides leadership to the group and reports to SCAR, and is currently co-chaired by Daniela Liggett and Elizabeth Leane. HASSEG organizes sessions, panels and other events at the biennial SCAR Open Science conferences as well as biennial conferences together with the History EG. Researchers with an interest in the Antarctic humanities and social sciences topics are welcome to become members of HASSEG. Please visit our membership page: <http://antarctica-hasseg.com/join-hasseg/>.

## Acknowledgements

HASSEG and the History EG gratefully acknowledges the financial and in-kind support for the 2017 Conference and associated events provided by:

**ARC** – Australian Research Council

**CAIA** – Centre for Colonialism and Its Aftermath, University of Tasmania

**IMAS** – the Institute of Marine and Antarctic Studies, University of Tasmania

**MAM/OCC** – Marine, Antarctic and Maritime Research Theme & Oceanic Cultures and Connections Research Cluster, University of Tasmania

**MERG** – Multidisciplinary Environment Research Group, University of Tasmania

**NATURE Communications**

**SCAR** – Scientific Committee on Antarctic Research

**Tasmanian Polar Network**

Thank you also to the Antarctic Ocean Alliance for use of their penguin suit to greet delegates!

We are also extremely grateful to our tireless team of student interns and volunteers who have assisted throughout.

## About the ARC

The Australian Research Council (ARC) is a Commonwealth entity and advises the Australian Government on research matters, administers the National Competitive Grants Program, a significant component of Australia's investment in research and development, and has responsibility for Excellence in Research for Australia (ERA).

The ARC provided in-kind support to the conference through convenor Elizabeth Leane's ARC Future Fellowship.

## About CAIA

Colonialism and its Aftermath (CAIA) is an interdisciplinary research centre based at the University of Tasmania. It provides a forum for teaching, research and scholarship in the fields of colonial and postcolonial studies, and facilitates interaction with the local community as well as with heritage and tourism industries.

CAIA provided financial support for the event.

## About IMAS

The Institute for Marine and Antarctic Studies is a centre of excellence for marine and Antarctic research. IMAS research cuts across traditional scientific and social scientific boundaries. IMAS is dedicated to enhancing environmental understanding and facilitating thoughtful and sustainable development for the benefit of Australia and the world.

IMAS provided the venue for the conference and the *whiteout whitenoise* art exhibition, as well as in-kind and logistical support.

## About MAM/OCC

The University of Tasmania's five Research Themes draw together its rich multidisciplinary expertise to develop solutions to real-world problems of global relevance, within a local context. The Marine, Antarctic and Maritime (MAM) Research Theme brings together researchers from across the disciplines working on issues such as Antarctic and Southern Ocean governance, marine technology capability and sustainable marine systems.

Oceanic Cultures and Connections (OCC) is a research cluster supported by MAM. Researchers in the cluster examine the ocean as a site of cultural connection, mobility, exchange and global change. OCC provides a unique opportunity for those working in the humanities, creative arts and social sciences to enhance and expand the University of Tasmania's existing strengths in marine, Antarctic and maritime studies, island studies, and regional studies, producing a genuine synthesis of different disciplinary knowledges.

MAM/OCC financially supported the conference, specifically the *whiteout whitenoise* art exhibition and the workshop on incorporating HASS into large polar research projects.

## About MERG

The UTAS Multidisciplinary Environment Research Group is interested in the ways that we affect, and can be affected by, the environments in which we live. The group addresses the social, cultural and artistic questions facing our natural, industrial and built environments with an aim to forge understanding of environmental change, risk, threat and opportunities. MERG fosters cross-disciplinary collaborations between the sciences, humanities, social sciences and creative arts through the organization and support of conferences, symposia, workshops and guest lectures.

MERG provided financial support to the conference.

## About NATURE Communications

Australian polar film producer, field survival guide and naturalist Stephen Curtain of Nature Communication began his film career at the BBC Natural History Unit. From Russia's Kamchatka, Japan's Hokkaido to Antarctica, Stephen empowers polar researchers, scientists and educationalists to share their story for a better planet. Stephen will be capturing the conference on camera. Please say hello. For more, please see [stephencurtain.com/Antarcticresearchscienceeducation.html](http://stephencurtain.com/Antarcticresearchscienceeducation.html)

Stephen Curtain generously donated his time to document the conference and associated events.

## About SCAR

The Scientific Committee on Antarctic Research is an interdisciplinary committee of the International Council for Science (ICSU). SCAR is charged with initiating, developing and coordinating high quality international scientific research in the Antarctic region (including the Southern Ocean), and on the role of the Antarctic region in the Earth system.

SCAR supported the conference financially through its HASS and the History Expert Groups, specifically by subsidizing registrations for students and unwaged delegates, and by providing a number of student travel bursaries.

## About the Tasmanian Polar Network

The Tasmanian Polar Network (the TPN) is a group of businesses and scientific organisations based in Tasmania that all have a common focus on serving commercial and scientific activity in the Antarctic, sub-Antarctic and Southern Ocean.

The TPN is supported by the Tasmanian State Government through Antarctic Tasmania in the Department of State Growth. All TPN member organisations are experts in their field, and many have been successfully involved with hundreds of Antarctic region expeditions or projects. The people who work in these businesses are passionate about the region and the globally significant opportunity it provides. They understand the needs of people working in Antarctica and the Southern Ocean.

The TPN generously supported conference ice-breaker drinks and the opening of keynote Anne Noble's exhibition *whiteout whitenoise*.

## Useful Details

### Conference Venue

Institute for Marine and Antarctic Studies, University of Tasmania  
20 Castray Esplanade, Battery Point, HOBART

See [Google map](#)

### Wi-Fi Access

Free Wi-Fi access will be available for the duration of the conference. You will be allocated a login when you register. Please note it below.

Login:

Password:

### Catering

Morning and afternoon tea will be provided on-site at IMAS.

Lunch will be a short-5 minute walk from the venue provided at the following locations:

Wednesday 5th July – Waterman’s Beer Market, 27 Salamanca Place, HOBART

Thursday 6th July – Annapurna Restaurant, 93 Salamanca Place, HOBART

Friday 7th July – Zum, 27 Salamanca Place, HOBART.

### Icebreaker Drinks

Welcome drinks will be Tuesday July 4th at 5:30 – 6:30pm in the IMAS Gallery space, coinciding with the opening of the exhibition *whiteout whitenoise* by conference keynote speaker Anne Noble.

### Conference Dinner

The conference dinner will be held at the Black Footed Pig.

When: Thursday 6th July at 7:00pm.

Where: 8 Brooke Street, HOBART.

This is a separate event requiring additional registration and payment.

## Other Conference Related Events

### Reimagining Antarctic Gateway Cities: Public Panel

When: Wednesday 5 July, 6 - 7:30pm

Where: Aurora Lecture Theatre - IMAS, Castray Esplanade, HOBART

Hobart, Christchurch, Ushuaia, Punta Arenas and Cape Town may seem geographically remote from one another, but all five are linked because of their status as Antarctic Gateway Cities. What does this identity mean? How has it developed? And how could Antarctic Cities better collaborate?

An international panel of experts will explore what being an “Antarctic City” means within various national contexts, what benefits such status provides, and how connections with the far south could develop in the future. The panel will be followed by drinks, nibbles, and discussion. All are welcome.

Panellists include:

Juan Francisco Salazar,  
Western Sydney University (Participating chair)

Tim Short,  
Hobart City Council

Chloë Dear,  
Christchurch Antarctic Office

Elias Barticevic,  
Chilean Antarctic Institute

Gabriela Roldan,  
University of Canterbury

The panel is presented by research partners collaborating in the ARC project “Antarctic Cities and the Global Commons: Rethinking the” Gateways (LP160100210). See <http://antarctic-cities.org>

### Mawson’s Huts Replica Museum Tour

When: Thursday 6<sup>th</sup> July, 5:30 – 6:30pm

Where: Mawson’s Hut Replica Museum, Morrison Street & Argyle Street, HOBART.

Cost: \$5 per head – to be paid when registering on day 1 of the conference (limited tickets).

<http://www.mawsons-huts-replica.org.au/>

### TMAG Islands to Ice Tour

When: Thursday 6th July, 5:30 – 6:30pm

Where: Tasmanian Museum and Art Gallery, Dunn Place, HOBART.

Cost: \$5 per head – to be paid when registering on day 1 of the conference (limited tickets).

[http://www.tmag.tas.gov.au/whats\\_on/exhibitions/permanent/islands\\_to\\_ice](http://www.tmag.tas.gov.au/whats_on/exhibitions/permanent/islands_to_ice)

## Workshop: Towards the Incorporation of the Humanities and Social Sciences into Large Polar Research Projects

When: Friday July 7th, 5:30 – 7pm

Where: IMAS Flex Space

This event will workshop a series of questions about stakeholders (both within and outside academia) in Antarctic research and the role of humanities and social science approaches. This workshop will mirror one held at the International Congress of Arctic Social Sciences IX in Umea, Sweden, in June 2017, but with a primarily Antarctic rather than Arctic focus. A report will be created by EU-PolarNet, comparing Arctic and Antarctic results. Attendees will also be invited to be added to a contact list for consultation on future polar priorities.

Interested researchers across the disciplinary spectrum are invited to contribute.

Format: Short presentations from a panel of invited speakers followed by discussion and workshopping of questions.

Facilitator: Renuka Badhe, Executive Secretary, European Polar Board

Panellists:

Ass. Prof. Adrian Howkins, Global Environment History, Colorado State University

Dr Daniela Liggett, Environmental Management and Tourism Regulation, Gateway Antarctica, University of Canterbury

Prof. Akiho Shibata, International Law, Kobe University

Dr Richard Vokes, Anthropology, University of Adelaide

Ms Sachie Yasuda, Events and Project Manager, Australian Antarctic Division

## Polar Pathways Walking Tour

When: Saturday 8th July, 10-11.30am

Where: Meet in front of IMAS

Cost: \$5 per head – to be paid when registering on day 1 of the conference (limited tickets).

## Program

Wednesday 5 <sup>th</sup> July				
8:00 - 8:30am Registration 8:45 - 9:00am Welcome to Country & Conference Opening Deputy Vice Chancellor (Research) Prof Brigid Heywood				
Sign up and payment for Mawson's Hut, Islands to Ice TMAG & Hobart Waterfront Polar Tours - \$5 ea				
Time		Topic	Presenter	Location
9:00 – 10:00		<b>Keynote</b> <b>EYES ON ANTARCTICA: <i>Towards a critical imaginary for an environment at risk</i></b>	Prof Anne Noble	Aurora Lecture Theatre
			Chair: Elizabeth Leane	
Session 1				
		<b>UrbAntarctica</b>	Chair: Daniela Liggett	
10:00 - 10:30	A	<i>Urban Antarctica: The Madrid Protocol and 'Antarctic Specially Managed Areas'</i>	Kriwoken/Hemmings	Aurora Lecture Theatre
10:30 - 11:00	B	<i>The making (and masking) of an urban Southern Ocean</i>	Edwards	Aurora Lecture Theatre
		<b>New Perspectives on Exploration Narratives</b>	Chair: Julia Jabour	
10:00 - 10:30	A	<i>80°08' S, 163° 57' W: Ice, Interior and Inhabitation</i>	Nieboer	Flex Space 1
10:30 - 11:00	B	<i>Looking for Joe: Adopting an animal–human perspective in Antarctic historiography</i>	Patterson/Simmonds/Snell	Flex Space 1
		<b>Auroras: Past and Present</b>	Chair: Ursula Rack	
10:00 - 10:30	A	<i>Through Ice and Fire - the story of the Aurora Australis</i>	Laverick	Flex Space 2
10:30 - 11:00	B	<i>The Loss of the Antarctic Ship, S. Y. Aurora</i>	Dodd	Flex Space 2
11:00 – 11:30		MORNING TEA		
Session 2				
		<b>On the Line</b>	Chair: Lorne Kriwoken	
11:30 – 12:00	A	<i>When Fish is Meat: The Transnational Entanglement of Antarctic Toothfish</i>	Probyn	Aurora Lecture Theatre
12:00 - 12:30	B	<i>The Meanings of a Marine Protected Area in the Ross Sea from New Zealand</i>	Lorenzo	Aurora Lecture Theatre
12:30 - 1:00	C	<i>Propagules, Pumps and Briny Relations</i>	Reid	Aurora Lecture Theatre
		<b>Creativity, Collaboration and Data</b>	Chair: Ria Olivier	
11:30 – 12:00	A	<i>Fieldwork in Art and Astrophysics - Discerning Signal from Noise at the South Pole</i>	Fortescue	Flex Space 1
12:00 - 12:30	B	<i>Geolocation Journeys: a Science+Arts collaboration supporting marine predator research</i>	Rees/Cleeland	Flex Space 1
12:30 - 1:00	C	<i>Oceanic Bliss: From isolated heroes to interdisciplinary relationships</i>	Roberts/Gladstone	Flex Space 1
		<b>In Search of Seals</b>	Chair: Ben Maddison	
11:30 – 12:00	A	<i>Under the boats: a strategy for sealing in the nineteenth century</i>	Pearson	Flex Space 2
12:00 - 12:30	B	<i>BARRELS ON A BEACH: Power, authority and the crew of the Trinity at Heard Island, 1880-1882</i>	Downes	Flex Space 2
12:30 - 1:00	C	<i>The end of an era: sealing at the Prince Edward Islands in the early 20th Century</i>	Cooper	Flex Space 2
1:00 - 2:00		LUNCH - Waterman's		

Session 3				
		<b>Strata of Nationalism</b>	<b>Chair: Juan Francisco Salazar</b>	
2:00 - 2:30	A	<i>Subglacial Nationalisms</i>	Hemmings	Aurora Lecture Theatre
2:30 - 3:00	B	<i>'Into the Deep': the many layers of Nationalism in Antarctica</i>	Roldan	Aurora Lecture Theatre
3:00 - 3:30	C	<i>Small State Imperialism in the Subantarctic, 1880-1933</i>	Howitt	Aurora Lecture Theatre
		<b>The Antarctic Uncanny</b>	<b>Chair: Carolyn Philpott</b>	
2:00 - 2:30	A	<i>Haunting the Ice: Ghostly Encounters in Antarctica</i>	Grabow	Flex Space 1
2:30 - 3:00	B	<i>"The Mist of Terror": A Rare Antarctic Tale</i>	Wainschenker	Flex Space 1
		<b>Imaging the South</b>	<b>Chair: Rupert Summerson</b>	
2:00 - 2:30	A	<i>Multiple meanings within visual documentation by the Swedish South Polar Expedition (1901-1903): the tension between emotive/aesthetic and analytic/scientific motifs</i>	Millar	Flex Space 2
2:30 - 3:00	B	<i>Picturing the Past of the McMurdo Dry Valleys: How Visual Data Reveals Environmental Change</i>	Gullet	Flex Space 2
3:00 - 3:30	C	<i>Early Scientific Research in the McMurdo Dry Valleys: bibliometric analysis and visualization</i>	Chignell	Flex Space 2
<b>3:30 – 4:00</b>		<b>AFTERNOON TEA</b>		
Session 4				
		<b>Performing the South</b>	<b>Chair: Anne Noble</b>	
4:00 - 4:30	A	<i>Communicating Antarctic Science through Theatre</i>	Bergstrom	Aurora Lecture Theatre
4:30 - 5:00	B	<i>Listening At the Sea Ice Edge: Compositions based on soundscape recordings made in Antarctica</i>	Philpott	Aurora Lecture Theatre
		<b>Asia and Antarctica</b>	<b>Chair: Nengye Liu</b>	
4:00 - 4:30	A	<i>Let's (make) count the Asian presence in Antarctica</i>	Colombo	Flex Space 1
4:30 - 5:00	B	<i>Development of Malaysia's Position in Antarctica: 1983 Till Present</i>	Jayaseelan	Flex Space 1
5:00 - 5:30	C	<i>Tropic and the South Pole- Appreciating Antarctica from a distance</i>	Goh	Flex Space 1
		<b>Hobart as a Gateway: Then and Now</b>	<b>Chair: Gabriela Roldan</b>	
4:00 - 4:30	A	<i>Amundsen</i>	Williamson/Kriwoken	Flex Space 2
4:30 - 5:00	B	<i>Hobart's Role in Antarctic Affairs</i>	Rees	Flex Space 2
6:00 - 7:30		Panel - Gateway Cities		Aurora Lecture Theatre

Thursday 6 <sup>th</sup> July				
8:30 - 9:00am Registration				
Time		Topic	Presenter	Location
9:00 – 10:00		<b>Keynote</b> <i>The Antarctic Treaty and the Anthropocene</i>	Prof Tim Stephens	Aurora Lecture Theatre
			Chair: Marcus Haward	
Session 5				
		<b>Affect and Polar Aesthetics</b>	Chair: Meredith Nash	
10:00 - 10:30	A	<i>Invisible Laborers: Microorganisms and Women in the Antarctic Landscape</i>	Hersko	Aurora Lecture Theatre
10:30 - 11:00	B	<i>Affect and Feminist Polar Aesthetics: The Art Work of Judit Hersko and Anne Noble</i>	Bloom	Aurora Lecture Theatre
		<b>Framing Knowledge</b>	Chair: Emmanuelle Sultan	
10:00 - 10:30	A	<i>The Mobilisation of Antarctic Research</i>	Innes	Flex Space 1
10:30 - 11:00	B	<i>Institutional and Epistemic Cultures in the Time of Alternative Facts</i>	O'Reilly	Flex Space 1
		<b>The Digital Archive</b>	Chair: Renuka Badhe	
10:00 - 10:30	A	<i>Understanding the Antarctic region through digitised history</i>	Olivier	Flex Space 2
10:30 - 11:00	B	<i>Archiving and the way forward</i>	Louw	Flex Space 2
<b>11:00 – 11:30</b>		<b>MORNING TEA</b>		
Session 6				
		<b>The Politics of Protection</b>	Chair: Akiho Shibata	
11:30 – 12:00	A	<i>Managing an ecosystem: intellectual and geopolitical contest in the Southern Ocean after 1982</i>	Antonello	Aurora Lecture Theatre
12:00 - 12:30	B	<i>The European Union and the Conservation of Marine Living Resources in Antarctica</i>	Liu	Aurora Lecture Theatre
12:30 - 1:00	C	<i>The effectiveness of international environmental regimes: a case study on the Protocol on Environmental Protection to the Antarctic Treaty</i>	Mamabolo	Aurora Lecture Theatre
		<b>Icy Manoeuvres</b>	Chair: Adrian Howkins	
11:30 – 12:00	A	<i>The politics of the 1959' Washington Conference: interests, alignments and roles.</i>	Cardone	Flex Space 1
12:00 - 12:30	B	<i>The Central Intelligence Agency and Antarctica: 1947-59</i>	Lintott	Flex Space 1
12:30 - 1:00	C	<i>Crafting the 1959 Antarctic Treaty as an arms control instrument: the role of Australia</i>	Kawaja	Flex Space 1
		<b>Antarctic Encounters</b>	Chair: Dana Bergstrom	
11:30 – 12:00	A	<i>The Emotions of Popular Environmentalism: Fear, Empathy and Hope in the Campaign for a World Park Antarctica</i>	Shortis	Flex Space 2
12:00 - 12:30	B	<i>The Great White Stage: How World Park Antarctica Emerged from a performance of exploration and protest</i>	Roberts	Flex Space 2
12:30 - 1:00	C	<i>Breaking the ice: A proposal of mediation between archaeologists and non-archaeologists for an Antarctic experience</i>	Soares/Pena/Linhaes	Flex Space 2
<b>1:00 – 2:00</b>		<b>LUNCH - Annapurna</b>		

Session 7				
		<b>The Antarctic Treaty System: Past and Future</b>	<b>Chair: Sanjay Chaturvedi</b>	
2:00 - 2:30	A	<i>Is it all going south?: Four Antarctic futures</i>	Liggett/Frame/Gilbert/ Morgan	Aurora Lecture Theatre
2:30 - 3:00	B	<i>Challenges to the Antarctic Treaty System. Consideration for a prospective analysis</i>	Ferrada-Walker	Aurora Lecture Theatre
3:00 - 3:30	C	<i>Understanding the heritage making process in the frame of Antarctic Treaty System</i>	Senatore	Aurora Lecture Theatre
		<b>Positions Vacant</b>	<b>Chair: Kimberley Norris</b>	
2:00 - 2:30	A	<i>The Academic Alpine Club and its role in the Recruitment of Members for German Antarctic Expeditions</i>	Lüdecke	Flex Space 1
2:30 - 3:00	B	<i>Extremity and the Mundane: Recruiting Antarctic Personnel</i>	Nielsen/Jaksic	Flex Space 1
3:00 - 3:30	C	<i>No two snowflakes: The fit between personnel and environment in Antarctic stations</i>	Jaksic/Steel/Moore/ Stewart	Flex Space 1
		<b>Governing the Deep</b>	<b>Chair: Jeff McGee</b>	
2:00 - 2:30	A	<i>MPA as a tool for promoting scientific research? A comparative case study</i>	Kato/Shibata	Flex Space 2
2:30 - 3:00	B	<i>Monitoring systems to be considered in the Antarctic deep – as analogous to deep seabed mining regulations and practices in the Area</i>	Komaki/Dolsak	Flex Space 2
3:30 – 4:00		AFTERNOON TEA		
Session 8				
		<b>Between Law and Science</b>	<b>Chair: Tim Stephens</b>	
4:00 - 4:30	A	<i>After “The Lawyer in the Antarctic”: A few pointers for potential collaboration between scientists and lawyers in Antarctic research</i>	Shibata	Aurora Lecture Theatre
4:30 - 5:00	B	<i>The meaning of ‘science’ and commons governance in the Southern Ocean</i>	Brent/McGee/Gogarty/ Coady	Aurora Lecture Theatre
		<b>Gender, Science and the South</b>	<b>Chair: Lisa Bloom</b>	
4:00 - 4:30	A	<i>Gender on ice: Preliminary findings from a longitudinal study of women’s experiences of a transformational leadership program in Antarctica</i>	Nash	Flex Space 1
4:30 - 5:00	B	<i>Troubling Gender at the Polar Circle: a Study of the Brazilian Antarctic Research Program</i>	Pena	Flex Space 1
5:30 - 6:30		<b>Mawson's Hut Replica Museum Tour</b> Sign up day 1 - \$5 (limited tickets)		Mawson's Hut
		<b>Islands to Ice Tour</b> Sign up day 1 - \$5 (limited tickets)		TMAG
7:00 - 10:00		<b>Conference Dinner</b>		Waterfront

Friday 7 <sup>th</sup> July				
8:30 - 9:00am Registration				
Time		Topic	Presenter	Location
9:00 – 10:00		<b>Keynote</b> <i>A Critical Geopolitics of the 'Anthropocene': Climate Universalism, Antarctic Exceptionalism and Resilient Nationalisms</i>	Prof Sanjay Chaturvedi	Aurora Lecture Theatre
			Chair: Alan Hemmings	
Session 9				
		South American Perspectives	Chair: Cornelia Lüdecke	
10:00 - 10:30	A	Lewander Lecture: <i>Chilean Antarctic Historiography: Main Contributions and New Trends</i>	León Wöppke	Aurora Lecture Theatre
10:30 - 11:00	B	<i>"South American Antarctica", From the Andes to the South Pole: Genesis and development of a Chilean-Argentine concept throughout the 20th century</i>	Fontana	Aurora Lecture Theatre
		Ocean Aesthetics	Chair: Stephen Nicol	
10:00 - 10:30	A	<i>Phytoplankton: the jewels beneath the surface</i>	Deppeler	Flex Space 1
10:30 - 11:00	B	<i>Wilderness and aesthetic values in the Antarctic sea ice zone</i>	Summerson	Flex Space 1
11:00 – 11:30 MORNING TEA				
Session 10				
		No Place Like Home	Chair: Jessica O'Reilly	
11:30 – 12:00	A	<i>Indigenizing Antarctic History</i>	Maddison	Aurora Lecture Theatre
12:00 - 12:30	B	<i>Populating Antarctica: Chilean Families in the White Continent, 1984-1985</i>	Llanos	Aurora Lecture Theatre
12:30 - 1:00	C	<i>Constructing Kinship in Antarctica: Genealogies and Practices of Belonging on the Southern Continent</i>	Vokes	Aurora Lecture Theatre
		Looking into the Depths	Chair: Pablo Wainschenker	
11:30 – 12:00	A	<i>Structure and chaos in polar marine ecosystems.</i>	Nicol	Flex Space 1
12:00 - 12:30	B	<i>Into the maelstrom: Science and natural history in the Southern Ocean</i>	McCann	Flex Space 1
1:00 – 2:00 LUNCH - Zum				
Session 11				
		The Politics of Place	Chair: Alessandro Antonello	
2:00 - 2:30	A	<i>Placing the Past: The McMurdo Dry Valleys and the problem of geographical specificity in Antarctic history.</i>	Howkins	Aurora Lecture Theatre
2:30 - 3:00	B	<i>Exposing the Geopolitical Significance of Antarctic Proximity</i>	Hingley	Aurora Lecture Theatre
3:00 - 3:30	C	<i>Geographical societies, mapping and interests in the Antarctic</i>	Rack	Aurora Lecture Theatre
		#Antarctica	Chair: Richard Vokes	
2:00 - 2:30	A	<i>The Messenger's Motives: 'Dead Whales Can't Wave Back' and other paradoxical representations of Antarctica</i>	Jabour	Flex Space 1
2:30 - 3:00	B	<i>Near, Far, Wherever You Are....Social Media Goes On</i>	Norris	Flex Space 1
3:00 - 3:30	C	<i>The hungry media monster vs the profoundly neutral multilateral organisation</i>	Glynn	Flex Space 1
3:30 – 4:00 AFTERNOON TEA				
4:00 - 5:15		<b>Closing Remarks &amp; HASSEG Business Meeting</b>		Aurora Lecture Theatre
5:30 - 7:00		<b>HASS-STEM Workshop</b> "Incorporating the Humanities and Social Sciences into Large Polar Research Projects" Open Event - All delegates welcome		IMAS Flex Space

## Speaker Abstracts & Biographies

### Keynote



#### **Distinguished Professor Anne Noble**

Massey University

EYES ON ANTARCTICA: Towards a critical imaginary for an environment at risk

Antarctica and the Arctic are poignant markers of the impact of climate change in the 21<sup>st</sup> Century. While there is a growing awareness of the fragility of these environments, photography continues to interpret Antarctica as an iconic wilderness or the site of heroic human endeavour, representations that are unwittingly informed by 19<sup>th</sup> and 20<sup>th</sup> century European literary narratives and visual conventions. In this presentation I will discuss the relationship between photography, narrative and affect in the development and resolution of a series of photographic books and exhibitions made between 2001 and 2017. Each of these projects is the outcome of a search for new images and metaphors that provide a critical and imaginative frame through which to consider our relationship to Antarctica and our part in its rapid transformation.

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*Anne Noble is Distinguished Professor of Fine Art (Photography) at Massey University, Wellington. Her lens based practice spans landscape, documentary, and installations that incorporate both still and moving images. Antarctica has been a particular focus for more than a decade, an extension of her interest in how perception and cognition contribute to a sense of place. She has made three visits to Antarctica, the most recent in 2008, to complete numerous photographic book and exhibition projects including: Ice Blink (2011), The Last Road (2014), and Whiteout / Whitenoise (2016). In 2009 she received an Arts Foundation Laureate award in recognition of her contribution to the visual arts in New Zealand. She was the recipient of a 2014 Fulbright Senior Scholar Award to develop her current still photographic and video installation projects concerned with the decline of the honeybee and human relationships to natural biological systems.*

## Keynote



### Professor Timothy Stephens

University of Sydney

#### The Antarctic Treaty and the Anthropocene

Despite Antarctica's isolation, the Anthropocene's signature is inscribed deeply there, from the ozone hole etched in the southern sky to the cleaving of the ice shelves into the southern ocean. The Antarctic Treaty sought to quarantine Antarctica from the nuclear technologies that heralded the advent of the Anthropocene, and the Antarctic Treaty System is imbued with the romantic ideal of Antarctica as a pristine wilderness that needs only to be left alone to be protected. But in the Anthropocene it is the global forces let loose by human hands that are transforming Antarctica rather than any activities on the continent itself. What does this mean for our legal imaginings of Antarctica and the Southern Ocean? What might an Antarctic legal regime that understands and responds to the challenges of the Anthropocene look like?

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*Tim Stephens is Professor of International Law and Australian Research Council Future Fellow at the University of Sydney Law School and President of the Australian and New Zealand Society of International Law. Tim teaches and researches in international law and has published extensively on the law of the sea, international environmental law, and the polar regions. His recent works include *Antarctica in International Law* (Hart, 2015; co-edited with Ben Saul), *The International Law of the Sea* (Hart, 2nd ed 2016, co-written with Donald R Rothwell) and *Polar Oceans Governance in an Era of Environmental Change* (Edward Elgar, 2015, co-edited with David L VanderZwaag). Tim's Future Fellowship research project is examining the implications of the Anthropocene for international law.*

## Keynote



### **Professor Sanjay Chaturvedi**

Panjab University

#### A Critical Geopolitics of the 'Anthropocene': Climate Universalism, Antarctic Exceptionalism and Resilient Nationalisms

Climate is changing globally, albeit with a complex, somewhat understudied, geography underlying both the causes and consequences. What does not appear to be changing however, despite the dawn of the so-called Anthropocene, is the 'collective' behavior of societies, states and regimes necessary for sustainable futures. It is not a question of whether but when –perhaps sooner than later—the evolving climate change discourse at the Antarctic Treaty Consultative Meetings would be critiqued and questioned by a critical geopolitics of the Anthropocene. Such a critique interrogates its limited nature and limiting scope in terms of both ethical and geopolitical considerations around questions of knowledge, values, representation, responsibility and accountability. Climate change carries profound, physical as well as ideational implications for the Antarctic, its pronounced/proclaimed exceptionalism and the legal-political-ethical boundaries of its governance. Some of the key questions that haunt this critical [polar] social science laboratory for climate change are: What is it that is challenged or 'threatened' by climate change in the Antarctic: ecosystems, power-knowledge equations, national interests, interests of humankind, values, claims and rights to sovereignty? How come the powerful visualization of Antarctica and its ecosystems at the 'receiving end' of climate change, with far reaching regional and global implications, has so far failed to act as a catalyst for individual and collective behavioural change? After all, Antarctic Treaty states include the biggest polluters of the atmosphere. Can the current Antarctic climate discourse be broadened, deepened and reconfigured to give voice to global periphery, especially in Global South? If so, how? If not, why not?

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*Dr Sanjay Chaturvedi is Professor of Political Science at the Centre for the Study of Geopolitics, Panjab University, India. He specializes in theories and practices of Geopolitics and IR, with special reference to Polar Regions and the Indian Ocean Region. He was awarded the Nehru Centenary British Fellowship to pursue post-doctoral research at the Scott Polar Research Institute (SPRI), University of Cambridge, England (December 1991 to January 1993), which was followed by highly coveted*

*Leverhulme Research Grant of £55,000 (June 1993 to June 1995). While at the SPRI, he visited Antarctica, lecturing on board MS Alla Tarasova (Quark Expeditions, Canada) from 15 November-5 December 1994. Chaturvedi is the Regional Editor of The Polar Journal (Routledge) and Member, International Executive Committee (ex officio) SCAR Antarctic Humanities and Social Sciences Expert Group (Geopolitics). He was invited to deliver the Keynote on 'Antarctic Science and Policy Advice in a Changing World', the central theme of the SCAR Open Science Conference at University of Portland, USA, on 16 July 2012. He is the author of The Polar Regions: A Political Geography, Chichester: John Wiley & Sons, 1996; Dawning of Antarctica: A Geopolitical Analysis, New Delhi: Segment, 1990. His recent publications include 'Climate Terror: A Critical Geopolitics of Climate Change, Palgrave Macmillan 2015 (co-authored with Timothy Doyle) and Environmental Sustainability from the Himalayas to the Oceans: Struggles and Innovations in China and India, Springer, 2017 (co-edited with Shikui Dong and Jayanta Bandyopadhyay). Chaturvedi is a Member of the Core Group of Experts on Antarctica and the Southern Ocean Affairs, constituted by the Ministry of Earth Sciences, Government of India, since its inception in 2004. He has served on the Indian delegation to the Antarctic Treaty Consultative Meetings (ATCMs). He is a Current Selection Committee Member for the 2017 'Tinker-Muse Prize for Science and Policy in Antarctica.'*

## The Lewander Lecture

The Lewander Lecture is presented annually by the SCAR History EG. It is given during the SCAR Open Science Conference or during the workshops or conferences of the SCAR History EG, in memory of Lisbeth Lewander, who passed away in early 2012, and her inspiring work on the history of polar research. The lecture should demonstrate the value of dealing with polar history from diverse points of view, as well as the importance of sharing ideas and experiences with the next generation of scholars in order to widen involvement in the field.

In 2017, the Lewander Lecture will be delivered by Consuelo León Wöppke. Dr. León is a senior researcher at the Hemispheric and Polar Studies Centre (Chile) and the head of the Chilean Delegation to the Latin American Antarctic Historians Association.

## Speaker Abstracts & Biographies

### Alessandro Antonello

University of Melbourne

Managing an ecosystem: intellectual and geopolitical contest in the Southern Ocean after 1982

The protection, conservation, and management of whole ecosystems through international treaties and conventions remains relatively rare. An important exception is the 1980 Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR), which established an international regime for governing resources exploitation with an ecosystem-level framework of conservation. CCAMLR was the first international treaty to have an ecosystem as its object of governance and protection. Yet, putting the intention of ecosystem-level conservation into practice after the Convention came into force in 1982 was a difficult and protracted process. This paper is about the processes of making ecosystem-level conservation a meaningful and practical idea during CCAMLR's first decade of existence. It explores developments in four areas. First, it explores how basic scientific research about the Southern Ocean ecosystem was developed through CCAMLR's scientific committee and the international BIOMASS program. Second, it looks at the relative importance of the ecosystem within the broader CCAMLR agenda, specifically against the concentration on scientific questions of krill abundance and political questions of catch levels. Third, it explores the tenacity of traditional fisheries management ideas of maximum sustainable yield, technology development, and a focus on exploitation rather than conservation. And fourth, this paper analyses the development of the CCAMLR ecosystem monitoring program after 1989. What this paper demonstrates is the great political and scientific difficulties of operationalising the profound promise of ecosystem-level conservation. In general, this paper is therefore about the contours and limits of 'ecosystem' in scientific, political, and cultural registers in a managerial setting, and speaks to the challenges in other environmental management regimes of making real the promise of ecosystem protection.

*Alessandro Antonello works in the fields of environmental history, international history and the history of science. His research investigates the history of Antarctica and the Southern Ocean since 1945, particularly the development of the contemporary international regime of environmental management and protection governing the region and its associated science and politics. His work has been published in Environmental History, the Australian Journal of Politics and History, The Polar Journal, Progress in Human Geography, and several edited collections. More broadly, he is interested in the conceptualisations, politics and diplomacy of global and international environments in the twentieth century.*

### Dana Michelle Bergstrom

Australian Antarctic Division

Communicating Antarctic Science through Theatre

October 2016 saw the world premiere of a theatre work called Antarctica at the Theatre Royal, Hobart. The work was a 2 hr musical with full production values, a professional cast of 10 and was supported by a small chamber orchestra. Puppetry was also used as an additional element of the production. The show told the story of expeditioners wintering at an Australian station, and in particular, it followed the experience of a young penguin biologist's first trip south. Central to the story was Antarctica as a 'character' and the impact of climate change and extreme events. In this presentation I will discuss my experience and challenges as the writer in translating science into theatre and present perspectives from the theatre practitioners that I worked with (composer,

director, director of puppetry, musical director, and designer). Furthermore, I will discuss audience feedback and consider lessons learnt in communicating Antarctic science. The presentation will also feature elements of the production and a demonstration of one of the penguin puppets.

*I am an applied ecologist with expertise in Antarctic ecology and conservation. I have participated in 33 Antarctic/subantarctic field trips and initiated and run multiple international science programs. I chaired the Australian National Committee for Antarctic Research for four years at the Australian Academy of Science and was the Australian Delegate to SCAR during the same time.*

### **Lisa Bloom**

University of California

#### Affect and Feminist Polar Aesthetics: The Art Work of Judit Hersko and Anne Noble

This paper draws on writing done for my book project *Polar Aesthetics in the Anthropocene: Imagining Climate* that attempts to visually address new forms of art, seeing, feeling and temporality that are coming into being in the age of the Anthropocene. In what follows, I bring together issues in 'critical climate change' scholarship that elucidates complex images of global warming that are neither spectacular nor instantaneous but rather incremental to examine aspects of feminist and environmentalist polar art in the works of Judit Hersko and Ursula Biemann. Judit Hersko's work plays with subtle representational forms as she focuses on highlighting aspects of global warming that escape notice because they happen at microscopic levels and rates so slow that transformation is too gradual to perceive. Ursula Biemann's piece *Subatlantic* is more focused on addressing the issues of representing geological time and the role of the nonhuman in understanding climate change over the course of 2500 years starting with the beginning of the Holocene. Her work explores the relationship between melting ice and rising sea levels and the long-term geological temporalities of such a phenomena on a planetary scale. Landscapes for Hersko and Biemann are not interpreted as natural phenomena or as venues for events; rather they are important in their efforts to write counter-geographies into these scientific planetary scripts that operate outside of human timeframes.

*Lisa E. Bloom is currently a research associate at the Centre for the Study of Women at UCLA. She is the author of *Gender on Ice: American Ideologies of Polar Expeditions* (1993, U. of Minnesota Press), the first critical feminist and postcolonial cultural studies book on the polar regions. More recently, she has written extensively on the polar regions, contemporary art and film, and is currently writing a book titled *Polar Aesthetics in the Anthropocene: Art and Visual Culture of the Polar Regions*. (Duke UP, 2017). The book examines aspects of feminist and environmentalist art and film in relation to new scholarship of the polar regions, bringing together issues routinely kept apart in climate change debates such as connecting gender to fossil-fuel capitalism, nationalism, and postcolonialism.*

### **Kerryn Brent, Dr Jeffrey McGee, Dr Brendan Gogarty**

University of Tasmania

#### The meaning of 'science' and commons governance in the Southern Ocean

Scientific activities enjoy a privileged status within treaties relating to the Southern Ocean, being less regulated or even exempt from the restrictions on commercial dealings in commons areas. Despite this there is little guidance, either in the treaties themselves, or in international law more generally, about how to distinguish scientific from non-scientific activities. This can create ambiguity about what is permitted, or allow states to adopt a definition of science that serves their self-interest, undermining the function of the treaty regime as a whole. We consider the relationship between the

meaning of science and the way in which commons treaties respond to institutional, political and cultural change. We examine three Southern Ocean treaties: the Whaling Convention, the Madrid Protocol and the 2013 Marine Geoengineering amendment to the London Protocol. Our analysis suggests that contestation over the object and purpose of a treaty is likely to lead to divergent understandings as to what qualifies as a scientific activity. It also highlights the importance of clearly defining science in international law in order to enhance commons governance. Understanding this dynamic between the purpose/object of the treaty and the meaning of 'science' can help international law and policymakers to strengthen commons governance. Importantly it can also help us to predict the strength and viability of new commons treaties and reduce the potential for international disputes.

*Kerryn Brent is a Lecturer in the Faculty of Law at the University of Tasmania. She researches in the field of international environmental law, focusing on the international governance of proposed geoengineering technologies.*

*Jeff McGee is the Senior Lecturer in Climate Change, Marine and Antarctic Law at the University of Tasmania at the Faculty of Law and the Institute for Marine and Antarctic Studies, University of Tasmania. He completed his PhD in Environment and Geography at Macquarie University and has a Master of Environmental Studies. Jeff was a partner in a successful legal practice in NSW and a senior legal advisor to the Federal Government for over 10 years prior to commencing his academic career. His work is widely published in leading international journals in the fields of international environmental law, global environmental governance and climate change policy. Jeff is a member of the SCAR Antarctic Humanities, Arts and Social Sciences Expert Group.*

*Brendan Gogarty is a Senior Lecturer in the Faculty of Law at the University of Tasmania.*

## **Ignacio Cardone**

Universidade de São Paulo

The politics of the 1959' Washington Conference: interests, alignments and roles

On December 1st, 1959, Representatives of twelve countries gathered in Washington to sign the Antarctic Treaty, giving origin to the regime that have ruled the white continent ever since. Considered by some as merely a formalization of the arrangement of the International Geophysical Year and the preliminary informal negotiations that took place on the previous months, the formal negotiation itself has not been object of more detailed scrutiny. The research presented here is directed precisely to offer some insights about the Washington Conference dynamics, looking on the interests that were mobilized; the grade of initiative of each party; the alignments and the logic that were behind each position; and the extent in which the Conference's negotiations altered the final arrangement of the Antarctic Treaty. To that end, the research had made use of the Conference's archival material, including official documents, transcripts of the meetings, and audio recordings. As a result of the analysis we argue that even when the final text presents a very similar structure and content to that proposed on the original draft elaborated by the Preliminary Commission, the Conference itself made contributions to the final text that are significant not only on the formal aspect, but also in the material and substantive dimension. On other considerations, the positions adopted by the parties reveal that the alignments of the parties were sustained for issue-related considerations more than any political pre-determined allegiance.

*Ignacio Javier Cardone is a PHD candidate at the International Relations Institute of the Universidade de São Paulo (IRI-USP, Brazil) with research on the Antarctic politics previous to the Antarctic Treaty. Master degree in Political Science from the Universidade Federal de Parana (UFPR, 2015, Brazil).*

*Bachelor in Political Science from Universidad de Buenos Aires (UBA, 2003, Arg.). Was tutor on the Universidad Nacional de Tierra del Fuego (UNTDF, Arg.), the Universidad Nacional de la Patagonia San Juan Bosco (UNPSJB, Arg.) and the Universidad de Buenos Aires (UBA, Arg.), between other institutions; and has been consultant of several institution, such as the Ushuaia City Government (Arg.) and the Centro Austral de Investigaciones Cientificas (CADIC-CONICET, Arg.). Has research experience on Brazilian Antarctic Policy, the Antarctic Treaty System, Epistemology and Methodology.*

## **Stephen Chignell**

Colorado State University

### Early Scientific Research in the McMurdo Dry Valleys: bibliometric analysis and visualization

In 1978, the Antarctic Division of New Zealand's Department of Scientific and Industrial Research (DSIR) published a bibliography of international Dry Valleys publications. This bibliography offers a fascinating look into early scientific research in the McMurdo Dry Valleys (MDV), an important location for Antarctic science. Through a variety of bibliometric analyses and data visualization techniques, this paper will use the DSIR bibliography to explore the history of early scientific research in the MDV. What were the early priorities for research? Who did the science and where? How did changes in MDV research relate to larger intellectual and cultural shifts in the physical sciences? Answers to these questions offer valuable insights not only into scientific developments in this important region, but also into changes in the countries conducting research. Using tools such as Palladio, Voyant Tools, and R, we are able to identify and visualize conceptual trends, frequently mentioned places, and years that mark key transitions. Our study serves as an important marker in a region experiencing rapid change. Future work will include integration with existing digital databases, enabling analysis of the entire 110-year history of science in the MDV. This will provide valuable historical context for both current and future Antarctic research.

*Stephen Chignell is a MS student in watershed science at Colorado State University. He has a background in music, geography, and international development. His current research interests are in cross-disciplinary applications of geospatial tools for mapping relationships in coupled human-natural systems.*

## **Andrea Colombo**

University of Canterbury

### Let's (make) count the Asian presence in Antarctica

Asian countries have been operating in Antarctica since the first International Geophysical Year 1957-58 and currently, four Asian countries have a stable presence in Antarctica operating nine facilities. Those four countries – namely India, Japan, People's Republic of China and Republic of Korea – are also, with Malaysia, members of the Asian Forum for Polar Sciences (AFoPS) which intends to promote the highest level of cooperation between Asian countries in polar issues. However, the number of facilities run by a country, is not the only method to evaluate its activities on the ice; in fact, scientific research and publications can be used as a scale to assess their activities and projects. This research counts the number of international scientific publications and the number of papers submitted to the Antarctic Treaty Committee Meeting (ATCM), by the five above mentioned countries, comparing their publications as singular fashion country with co-authorship works within AFoPS members and with non-AFoPS members. My presentation, using bibliometric analysis, attempts to further explore the notion that scientific cooperation between AFoPS members is a driving factor for the participating countries.

*Andrea Colombo is a PhD candidate at Gateway Antarctica, University of Canterbury (New Zealand), and his research focus on the Asian Forum for Polar Sciences (AFoPS). So far, scholarly research has looked at the Antarctic engagement of Asian states in a singular fashion, focussing on individual states rather than studying the development of international relations and coalitions between these countries regarding polar matters. My research aims at analysing and understating AFoPS's role within the wider Antarctic geopolitical framework.*

## **John Cooper**

Antarctic Legacy of South Africa

### The end of an era: sealing at the Prince Edward Islands in the early 20th Century

Between 1900 and 1930 10 sealing vessels are known to have visited the sub-Antarctic Marion and Prince Edward Islands in the southern Indian Ocean, although dated inscriptions on Marion Island suggest the ship register is incomplete. Sealing then concentrated on Southern Elephant Seals *Mirounga leonina* for their blubber, but fur seals *Arctocephalus* spp. were taken for their pelts whenever they were found. Sealing is first definitely known to have taken place at the Prince Edwards in 1804, 34 years after their discovery. Initially fur seals were taken but by the 1840s elephant seals became the primary target, following the collapse of the fur seal population due to over-exploitation. Sealing continued intermittently throughout the 19th Century. The beginning of the 20th Century signalled not only the decline and final demise of the industry but a switch from sail to steam. The first powered sealer was the South African *Victoria*, visiting in 1906; the last sailing ship was the U.S. whaler *Charles W. Morgan*, then already 76 years old, which stopped briefly in January 1917, taking six fur seals. Two sealing vessels were wrecked at the island in the 20th Century, the steamer *Solglimt* in 1908, and the *Seabird* in 1912. The former shipwreck is the focus of ongoing archaeological and historical research. The last sealing vessel was the steamer *Kildalkey* which visited Marion Island in 1930, killing 1490 elephant seals. Since then the seals have been left in peace save for scientific study, protected by legislation and the islands' management plan.

*John Cooper is a retired marine ornithologist turned amateur sub-Antarctic historian. He currently is the Principal Investigator for the Antarctic Legacy of South Africa project, part of the South African National Antarctic Programme, as well as being the honorary Information Officer for the international Agreement on the Conservation of Albatrosses and Petrels.*

## **Stacy Deppeler**

University of Tasmania

### Phytoplankton: the jewels beneath the surface

Just below the surface, in the layer of the ocean where light can still penetrate, live a diverse community of microorganisms that are fuel what is often termed as the "food chain of giants". Iconic Antarctic wildlife from krill to whales, seals, penguins, and seabirds, ultimately depend on single-celled marine plants (phytoplankton) for their food. Not only are they the base of the Antarctic food chain, they are responsible for creating the oxygen that we breathe and consume the CO<sub>2</sub> that we emit into the atmosphere. Phytoplankton are not only responsible for maintaining life in the oceans, they are also incredibly beautiful. Their complex and symmetrical designs can invoke a sense of awe but can often only be seen with high powered microscopes. They are also incredibly vulnerable to climate change but due to their microscopic size their plight often overlooked. Engaging with the public about Antarctic phytoplankton is difficult because of this, there are no heroic stories or charismatic traits that one can easily associate with them. However, focusing on their beauty, as

jewels beneath the surface, may be a way to connect people with the invisible, yet vulnerable, communities within our oceans.

*Stacy Deppeler is a PhD candidate at the Institute for Marine and Antarctic Studies, University of Tasmania, investigating the effect of climate change on Antarctic phytoplankton communities. During my PhD I have travelled to Antarctica three times with the Australian Antarctic Program, with over 10 months spent on Antarctic bases and the Australian icebreaker, the RSV Aurora Australis. I have also recently published a review article in the journal Frontiers in Marine Science on the current state of knowledge of climate change impacts on Southern Ocean phytoplankton.*

## David Dodd

### The Loss of the Antarctic Ship, S. Y. Aurora

This paper records the centenary of the loss of the famous Antarctic ship, S. Y. Aurora, which sailed out of Newcastle Harbour, New South Wales, Australia on 20 June 1917, with 21 members of her crew and was never seen again. This tragic event essentially represents the final chapter in the closure of the 'Heroic Age' of Antarctic exploration and discovery, which commenced with the Southern Cross Expedition (1898-1900) and ended with the ill-fated Ross Sea Party, part of Sir Ernest Shackleton's (Imperial Trans Antarctic Expedition (1914-1917)). The paper will trace the last six months of the Aurora's service from her return to Wellington, New Zealand on 9 February 1917 with the survivors of the marooned Ross Sea Party, her subsequent sale by Shackleton and her arrival in Newcastle to load coal for shipment to Iquique, Chile and then on to the United Kingdom via the Panama Canal, with saltpeter for the WWI war effort. It will also provide 'vignettes' of the Aurora's crew who, (almost all from the Captain down to the two ship's Boys), had signed on to take part in the fighting on the Western Front. Of particular interest will be the loss at sea of James Paton, the ship's Bosun, the most decorated Polar Medalist of the 'Heroic Age'. The reasons for the Aurora's loss at sea will also be examined given the suggestion that the Aurora may have been a casualty of the German Raider Wolf active at the time off the East Australia coast.

*David Dodd (JP, BCom(Melb), MBus(Fed), describes himself as a Antarctic Veteran, Science Education Facilitator and Polar Historian, having wintered with the Bureau of Meteorology at Macquarie Island and Davis, also visiting Mawson and Heard Island. Since 2009 he has voluntarily organized an Antarctic Science Education outreach program, a concept first promoted during the 2007-2008 International Polar Year, involving summer flyovers of Australian Antarctic Territory, Terre' Adelie and New Zealand's Ross Dependency for school groups from Australian States and New Zealand. The concept is aimed at encouraging secondary students to study maths and sciences, at the same time learning about the proud history of exploration and discovery of the continent and Australia's current efforts as an Antarctic Treaty member. He write articles on Polar history, as well as organising anniversary commemorative projects, such as the 2009 George Neumayer, 2009 South Magnetic Pole and recently, the 2017 Aurora Commemoration at the Newcastle Cathedral.*

## Liz Downes

La Trobe University

### BARRELS ON A BEACH: Power, authority and the crew of the Trinity at Heard Island, 1880-1882

During the final nineteenth century elephant sealing voyage to Heard Island, thirty-five members of the crew of the American whaling bark Trinity were shipwrecked on sub-Antarctic Heard Island. The

existing official records and accounts by survivors present a matter of fact account of their ordeal during a hazardous fifteen months of snow, rain and blizzards, during which two of their party died. Yet they also can be read more deeply. As the realities of survival became more difficult for the disparate crew of Portuguese Africans, career whalers from New London, Connecticut and white working-class sailors, the accounts reveal elliptical clues to internal power struggles, deteriorating race relations and the slow disintegration of authority and community in the face of the implacable sub-Antarctic environment of the icebound volcano.

Describing a forgotten incident in the whaling and sealing history of Australia's sub-Antarctic territory, this paper links Heard Island's dramatic landscape and isolated wilderness with communities in New London Connecticut and the African Cape Verde Islands. In 2010 Liz Downes completed a MA on the wreck of the Trinity in the Department of History at University of Melbourne. She is currently completing a PhD in at La Trobe University on the hunting and economic use of native animals in Victoria.

*In 2010 Liz Downes completed a MA on the wreck of the Trinity in the Department of History at University of Melbourne. She is currently completing a PhD in environmental history at La Trobe University on the hunting and economic use of native animals in Victoria 1835-1920.*

## Charity Edwards

Monash University

### The making (and masking) of an urban Southern Ocean

Often described as at 'the end of the Earth', the Southern Ocean is an extraordinary geo-imaginary, removed from everyday experiences of the world (Elzinga, 2016) and obscured by the remarkable figure of Antarctica. This is expressed through the representations we continually encounter of this space: visually (dazzlingly white, uninhabitable, heroic survival), conceptually (preserved, pristine, untouched), and geo-politically (extreme territories, wild journeys, global commons). Still, mythologised pasts, visions of a 'pure' present, and techno-utopian futures all limit our conception of the Southern Ocean. In addition to this, our landed bias more generally renders the colossal ocean invisible or simply as a surface for shipping between cities. This space is however a clear manifestation of Brenner's (2014) 'extended urbanisation': a vast landscape co-opted by increasingly destructive urban processes. The urbanising Southern Ocean thus represents a significant arena of critical disregard. The world's 'newest' and most vulnerable ocean hosts unusual entanglements of water, ice, weather, atmosphere, land, and life; and is of great import to disruptions popularly framed by the Anthropocene. Therefore, when we reduce the ocean to a mere backdrop for human action, our capacity to respond to planetary-scale transformations enacted by everyday urban practices is fundamentally diminished. This paper will interrogate the makings and, importantly, the 'maskings' of an urban Southern Ocean. How are planetary processes of urbanisation manifest in vast landscapes such as the Southern Ocean? And why do our imaginaries of the Southern Ocean create an un-urbanised landscape when evidence is so clearly to the contrary? Finally, what purpose is served by disregarding urban processes here?

*Charity Edwards is a lecturer and urban researcher in the Department of Architecture at Monash University, and a registered architect. She continues to collaborate with other spatial practitioners to create interiors, buildings, and landscapes. Charity's research explores uneven and more-than-human impacts of urbanisation and climate change at the scale of the planet. She foregrounds the long-disregarded space of the world ocean in these processes in particular, and uses image-making and video practices to investigate spatial experience within urban theory. Charity is currently undertaking a PhD at the University of Melbourne on Antarctic geo-imaginaries and the increasing urbanisation of the Southern Ocean. Her current investigations ask how and why this so often conflicts with our*

*popular understanding of Antarctica as “like being on another planet”. Charity is also a member of a Water Sensitive Cities international research team (led by the Monash Sustainable Development Institute), revitalising informal inundation-prone urban settlements in Fiji and Indonesia.*

## **Luis Valentín Ferrada-Walker**

Universidad de Chile

### Challenges to the Antarctic Treaty System. Consideration for a prospective analysis

The main political and legal challenges that face the Antarctic Treaty System (ATS) will be analysed highlighting the elements that ought to be considered in medium or long prospective research. The major challenges can be categorized into five groups: (1) Internal relations among ATS participants and especially the Antarctic Treaty Consultative Meeting's (ATCM) capacity to produce norms for Antarctic governance; (2) External relations of ATS and States participating in this regime with other States of the World and International Organizations; (3) Political and legal position of Claimant States, their present influence in the ATS and threats to the 1959 ruling that suspends territorial Antarctic controversies; (4) Antarctic environment protection and use (or misuse) of some legal tools that have been developed with this aim; and (5) Use and exploitation of Antarctic resources and its economic and political consequences. The increase in membership, heterogeneity and asymmetry of the States that are now part of ATS, including the seven Claimants has produced substantial changes in its political balance. The new economic and strategic uses and interests in the Antarctic are also affecting this international regime. 2048 is a minimum temporal framework to any Antarctic prospective analysis. It is a work still almost fully pending, that must be faced with a multidisciplinary vision. This paper wants to highlight some relevant issues and it adopts a critical approach. It seeks to promote academic discussion about the future of ATS and Antarctic governance.

*Luis Valentín Ferrada-Walker is lawyer, PHD on Law and Professor of International Law on Universidad de Chile. He is the General Editor of Revista Tribuna Internacional law journal. He is member of the Chilean Society of International Law, the Latin-American Society of International Law and the Humanities and Social Sciences Expert Group (HASSEG) of the Scientific Committee on Antarctic Research (SCAR). He was adviser on international law and Antarctic issues in Chilean Ministry of National Defence and legal adviser in Antarctic Directorate in Chilean Ministry of Foreign Relations. He was the main author of the new Chilean Antarctic Law which is under discussion on Chilean National Congress at the present. He is regularly counsellor of Chilean Government in legal and politics Antarctic's matters. He is author of several academic publications, mainly in legal and historic issues. He was Visiting Researcher in Yale School of Law when he was working in his PHD Dissertation, about jurisdiction and environment protection on the Antarctic Treaty System. He has been Visiting Professor in the Universidad Autonoma de Madrid, researching about relationship between European Union and the Antarctic Treaty System. He is responsible researcher of Project FONDECYT N° 11160039 (2016-2019), “Comparative analysis of domestic law about Antarctic environment protection in Chile, Argentina, United Kingdom and United State”.*

## **Pablo Fontana**

Argentine Antarctic Institute

### South American Antarctica”, From the Andes to the South Pole: Genesis and development of a Chilean-Argentine concept throughout the 20th century

Since the beginning of the twentieth century the governments of Argentina and Chile have expressed their intentions to reach an agreement regarding their Antarctic interests. Diplomatic dialogue between the two states gave rise to the concept of "South American Antarctica". After a quarter of a

century this concept acquired unusual impulse in the second postwar, as a result of the unprecedented alliance between the two countries of the Southern Cone, against the British Antarctic claims. The alliance materialized in 1948 with the signing of the mutual agreement of recognition and legal defense of their respective Antarctic claims, along with a series of concrete actions in the sixth continent that fed that new concept. These activities meant a broad deployment of permanent military and scientific presence, as well as expressions of trans-Andean friendship and demonstrations of force which even included armed incidents with British forces. The present work focuses on the origin and development of the idea of a "South American Antarctica" in the political thinking of these two countries in order to elucidate the main factors that converged to create it, in spite of both nations maintaining several border disputes that were still unresolved as well as the difficulty derived from the overlapping of their Antarctic claims.

*Pablo Fontana is a Historian based at the Argentine Antarctic Institute (IAA/DNA). He has a degree in History at the University of Buenos Aires where he is also completing his PhD. He began his PhD as a The National Scientific and Technical Research Council (CONICET) fellow in History. In addition, he participated in two research stays for the PhD in Berlin with scholarships granted by the German Academic Exchange Service (DAAD). He has presented papers at various international academic events and published the book *La pugna antártica: el conflicto por el sexto continente (1939-1959)*. (*The Antarctic struggle: conflict in the sixth Continent 1939-1959*).*

## **Donald Fortescue**

California College of the Arts

Fieldwork in Art and Astrophysics - Discerning Signal from Noise at the South Pole.

This paper presents the outcomes of recent artistic fieldwork at the South Pole completed under a US National Science Foundation Antarctic Artists and Writers Fellowship in collaboration with the IceCube Neutrino Observatory. The author approached artmaking and astrophysics as two congruent practices of 'fieldwork' - both requiring the overcoming of logistical challenges, the deployment of sensitive and largely untested instruments, improvisation and adjustment to accommodate field conditions and unexpected contingencies, and comprehending and interpreting the resulting data. The artistic output of the fieldwork is analysed using non-traditional perspectives derived from scientific analysis. Key approaches include considering the relationship between noise and signal, definitions of a 'field', and through careful re-definition the terms transduction, artifact and resonance.

*Donald Fortescue is a Professor of Art and Design at the California College of the Arts (CCA) in San Francisco. He was born in Sydney, Australia, where he studied zoology and botany for his first degree, and worked as a botanical consultant and scientific illustrator for many years. His love of making lead him to further studies in design at the Australian National University and then to a Master's degree in Sculpture. He moved to the US in 1997 to head the Furniture Design program at CCA. He has exhibited in Australia, the US, Europe, Asia and South America. He received the Experimental Design Award from San Francisco's Museum of Modern Art in 2001 and his work is in the permanent collections of the National Gallery of Australia, the Powerhouse Museum in Sydney, the Museum of Art and Design in New York, the Houston Museum of Fine Art and the San Francisco Museum of Modern Art. His work involves the use of digital technologies in tandem with antiquated technologies and craftsmanship associated with expeditions of discovery from the Enlightenment era to the early 20th Century. By combining these seemingly disparate technologies, Fortescue investigates their underlying meanings. Prof Fortescue is currently a PhD. candidate at the School of Art of the Australian National University where his research explores congruencies between the methodologies, aspirations and limits of 'science' and 'art'. In the austral summer of 2016/17 Fortescue was a US National Science Foundation*

*Antarctic Artist and Writers Fellow where he worked in collaboration with the IceCube Neutrino Observatory at the South Pole.*

## **Warrick Glynn**

CCAMLR/University of Tasmania

### The hungry media monster vs the profoundly neutral multilateral organisation

The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) is a multilateral organisation, comprised of 24 member countries and the European Union. Based on the best available scientific information, the Commission agrees a set of conservation measures that determine the use of marine living resources in the Antarctic. CCAMLR's 25 Members have a diverse range of positions on a number of issues. For this reason, the Secretariat must remain neutral and must take care not to be seen as aligned with a particular view. The Secretariat cannot promote one Member's position on an issue over that of another. This presentation is about the balancing act performed by a Secretariat sensitive to the expectations of Members regarding neutrality, impartiality and avoidance of an expression of opinion that may not be shared by all Members. I will discuss the CCAMLR experience of attempting to accommodate the appetite of a hungry media monster while protecting and advocating for a diverse range of positions across our international membership. I explore how CCAMLR tries to manage the flow of sensitive information against a backdrop of media campaigns from lobby groups, NGOs and individual Member countries, all keen to make their positions widely known. It can be quite the PR minefield. I don't profess to have all the answers to this complex communications challenge but I'm interested in opening up the topic for discussion with delegates of the HASSEG Depths and Surfaces Conference 2017 and inviting them to contribute their perspectives to this stakeholder relations conundrum.

*Warrick began professional life as a science teacher and taught for a number of years in Australia, the UK and as an 'Australian Volunteer Abroad' in Zimbabwe. Following that he moved on to a career in business communication which he has been doing for nearly twenty years. The bulk of this time was spent in Communication Manager roles at CSIRO and La Trobe University. His current roles are Communication Manager with the Integrated Marine Observing System and Web Content Manager with the Commission for the Conservation of Antarctic Marine Living Resources, both in Hobart, Tasmania.*

## **Hong Ching Goh**

University of Malaya

### Tropic and the South Pole- Appreciating Antarctica from a distance

As a medium income tropical country located in the south-east Asia, there is no 'direct' connection with the polar continent, socially to be specific. Nonetheless, with the engagement of Malaysian scientists in the polar research, the concern over the global climatic importance of Antarctica, and the increasing significance of tourism in the region, we embark this research aiming to map the perception of Antarctic values in several states within the country. Specifically, we wanted to relate the geographical difference of the public perception and to explain it based on the awareness campaigns carried out by the relevant government agencies so far. The project duration is practically a two-year research, and will be ending in November 2017. We collected data using questionnaire survey using both online and face-to-face approaches with a total of 1,400 samples collected nationwide and is employing SPSS v21 for data analysis.

*Goh Hong Ching is a senior lecturer at the Department of Urban and Regional Planning, Faculty of Built Environment, University of Malaya. She holds a Doctor of Natural Science degree (Geography) from Rheinische Friedrich-Wilhelms-Universität Bonn, Germany. She received a Bachelor degree in Urban and Regional Planning then a M.Sc. degree in Tourism Planning, from Universiti Teknologi Malaysia. She is a corporate member of Malaysia Institute of Planners (MIP) and a registered member of Board of Town Planners Malaysia. She has two main research interests, i.e., in tourism and in urban studies. For the former, she focuses on tourism governance, tourism planning and impacts management especially in heritage and protected areas. For the latter, on natural resource and environmental issues and governance, sustainable development of cities, urbanization and the related risks. More recently, she has developed interest to understand the diverse perceptions of nature in protected areas and cities, and to apply nexus thinking in understanding the natural resource, its users and their linkages.*

## **Johanna Grabow**

University of Cambridge

### Haunting the Ice: Ghostly Encounters in Antarctica

Antarctica is the continent of well-known superlatives. Yet, besides being the coldest, windiest, highest and driest continent, it is, according to statistics, also the most haunted place on earth. For every 9.69 (temporary) inhabitants in the far south, there roams one ghost to haunt them. On a continent where volcanoes are called Erebus and Terror and the so-called Ghost Mountains lie buried beneath its middle, ghosts have plenty of room to wander the ice. The vast ice sheets of Antarctica serve as an enormous freezer, not only safeguarding thousands of years of history in its numerous layers, but also conserving abandoned huts and stations as well as the bodies of unfortunate explorers. Tracing spine-tingling encounters on page, in film, travel diaries and the arts, I will trace the short – but nonetheless “lively” – history of ghosts at the bottom of the world. Antarctica hereby serves as the stage for a whole range of negative human emotions; from primordial fear, deep uncertainty and even hidden desires, buried deep in the subconscious. Supernatural phenomena such as ghosts are therefore both a fictional reference point and a coping mechanism for the uncanny nature of the icy wastes. With the help of photographs, film footage and examples from literature, I would like to show that no place is indeed hostile, remote or cold enough for a proper ghost to heat up our imagination.

*Johanna Grabow earned a B.A. degree in British Studies and History, as well as an M.A. degree in British Studies from Leipzig University. She is currently working on her PhD thesis which focuses on the reception of Antarctica in contemporary British literature. In addition to investigating the sphere of influence of the southernmost continent, her research interests include the connection between the sciences and the arts, especially the link between chaos theory and literature, ecocriticism, and narrative structures in postmodern literature. At present Johanna is living and working in Cambridge, England.*

## **Poppie Gullet**

Colorado State University

### Picturing the Past of the McMurdo Dry Valleys: How Visual Data Reveals Environmental Change

Maps present an informative and authoritative form of data. When combined with historical data, maps can help historians analyse, interpret, and illustrate change over time. When considering the environmental history of the McMurdo Dry Valleys in Antarctica, being able to illustrate space and time together is essential for understanding the way people have interacted with and been affected

by this unique landscape. Our website seeks to illustrate the environmental history of the Dry Valleys by combining techniques of digital, public, and environmental history as well as glaciology and natural resource management into one geo-referenced map that shows important points of human activity around the Valleys. At each point, photographs taken by scientists visiting the area (starting mostly in the 1950s and continuing to the present with repeat photography) illustrate the changes that have occurred on the landscape. Where once a geologist photographed a small puddle of highly salty water, for example, now a much larger lake exists. Glaciologists that stayed in huts built in the sixties might now be surprised to see those same huts completely removed from the landscape. The website serves as a tool for scientists, historians, and administrators, and draws extensively on the knowledge base of Antarctic scientists. Having a more complete visual record can be used to ask better questions about environmental and spatial histories of this unique region.

*Poppie Gullett is currently receiving her Master's Degree in History with a concentration in Cultural Resource Management at Colorado State University. Born and raised in Colorado, she plans to use her degree to help communicate the history of unique places like Antarctica to the public.*

## **Alan D. Hemmings**

University of Canterbury

### Subglacial Nationalisms

Antarctic geopolitics is a tussle with various materialities. Amongst these are geographical space, involving positions around territorial sovereignty, national 'presence' and the historical contingency of areas of operation even amongst non-claimants; and scientific research, which serves multiple purposes from objective interest, through instrumental need (nowhere more evident than in relation to anthropogenic climate change), Antarctic institutional glue, economic enabler, surrogate for national interest and laundry for nationalism. This paper examines the interface of nationalism with 'subglacial research', which is taken here to include 'deep-ice' as well as notionally 'sub-ice' systems. Subglacial research might seem an unlikely object for capture by Antarctic nationalisms. An arcane focus, literally and conceptually too deep to gain attention. Its material focus on ice-cores and deep limnic systems transcends regional particularity, make sense only in a broader contexts and purposes, requires intellectually and logistically complex and expensive 'big science', and thus seems inherently to require internationalist approaches. But science 'as currency' within the Antarctic Treaty System, the totemic value of big science as a marker for wider national interests, the public appropriability and status signification of 'million-year' ice-cores or subglacial lake penetration challenges this. It challenges it without explicitly rejecting internationalism of Antarctic scientific research; indeed, this nationalism is invariably disguised as a contribution to such international public goods. Subglacial research, whatever else it remains, is now also a device for the pursuit of nationalist agendas in Antarctica.

*Dr Alan D. Hemmings is a specialist on Antarctic governance based in Perth in Western Australia, and an Adjunct Associate Professor at Gateway Antarctica Centre for Antarctic Studies and Research at the University of Canterbury in Christchurch, New Zealand. His Antarctic experience includes time south with the British, French and New Zealand national programmes, Greenpeace, and as a New Zealand Government observer on Antarctic tourism activities. He participated in dozens of Antarctic Treaty System diplomatic and scientific meetings between 1989 and 2010. His current Antarctic work focuses on its geopolitics: globalism's effect on its governance and the contemporary roles of territorial sovereignty and nationalism. Recent publications include *consideration of the Antarctic in History Lessons for the Arctic: What International Maritime Disputes Tell us about a New Ocean* (2016: CSIS), *Handbook on the Politics of Antarctica* edited with Klaus Dodds and Peder Roberts (2017: Edward Elgar); *International Polar Law* edited with Donald R. Rothwell (Forthcoming 2017/18: Edward Elgar).*

## Judit Hersko

California State University San Marcos

### Invisible Labourers: Microorganisms and Women in the Antarctic Landscape

This performance lecture explores Polar science, affect and aesthetics through the story of real and fictitious female scientists, artists and explorers. It also highlights my collaboration with oceanographers in Antarctica, as well as at the Scripps Institution of Oceanography, who study sea air gas exchange and ocean acidification. At the centre of the story is Anna Schwartz, a fictitious unknown explorer, photographer and artist who travels to Antarctica in 1939. Her made up encounters with real people and her insertion in real events exposes the absence of women from the history of polar exploration and science, highlighting the invisible labour of women and microorganisms. The narrative revolves around art objects that Schwartz creates as gifts to other female scientists, for example the “Self-Portrait with Diatoms,” a gift to Easter E. Cupp, the first woman to receive a Doctorate in oceanography in the US for her seminal study of diatoms (1934). Diatoms are the major agents sequestering carbon, binding over 20% of the atmospheric carbon (more than the rainforests combined). Their labour over the millennia formed the fossil fuels we burn so rapidly today. While Easter Cupp explored these single-cell organisms at the inception of the carbon cycle, the scientists I collaborate with today measure the effects of carbon dioxide re-entering the atmosphere due to human activity. Anthropogenic climate change is altering the chemistry of the oceans and diatoms, as hard as they try, are unable to keep up and protect their calcifying neighbours who are adversely affected by ocean acidification.

*Judit Hersko is an installation artist who works in the intersection of art and science and collaborates with scientists on visualizing climate change science through art and narrative. In 2008 she received the National Science Foundation Antarctic Artists and Writers Grant and spent six weeks in Antarctica. Her work has been featured internationally including in Germany, Austria, Hungary, Spain, and in many cities around the United States including Chicago, New York, Los Angeles and San Diego. In 1997 she represented her native Hungary at the Venice Biennale and her work is included in several museum collections for example at the Museum of Contemporary Art, Ludwig Museum in Budapest and the Museum of Fine Arts in Budapest. Articles on her work have appeared broadly, for example in Sculpture Magazine and Art in America, and she has presented extensively on her collaboration with scientists at universities, research institutions, conferences, and symposia. She participated in the Anthropocene slam: A Cabinet of Curiosities at the Nelson Centre for Environmental Humanities (2014) and in the resulting exhibition at the Deutsches Museum (Munich 2015). She has published several articles and book chapters for example in Remains of the Anthropocene: A Fragmentary History in 15 Object, editors Gregg Mitman, Robert Emmett, and Marco Armiero (forthcoming, University of Chicago Press, 2017) and in Far Fields: Digital Culture, Climate Change, and the Poles, editors Andrea Polli and Jane Marsching (Intellect Books 2011). Her Current collaboration with Dr Ralph Keeling “400 Parts in a Million” is featured in “Weather on Steroids: the Art of Climate Change Science” on view at the La Jolla Historical society until May 2017. Hersko is a Professor and Associate director in the School of Arts at California State University San Marcos, where she initiated the Art and Science Project.*

## Rebecca Hingley

University of Tasmania

### Exposing the Geopolitical Significance of Antarctic Proximity

In International Relations Antarctic governance is an anomaly. It has proved an unparalleled example of successful and peaceful international governance without government – the Holy Grail for the less pessimistic of the discipline. To develop a more fundamental understanding of why states and their

citizens act and behave the way they do towards Antarctica, we can look beyond state issued official and strategic Antarctic foreign policies, and instead reveal states' Antarctic propinquities. This concept describes the unofficial yet most sincere depiction of a state's relationship with the continent, encapsulating genuine state motives and public opinion. Traditionally, discussions of Antarctic geopolitics have been dominated by 'harder' social sciences foci such as security, international law, economics and sovereignty. Realpolitik is important, however, the more fluid social, cultural, ideological and even philosophical factors behind state level decision-making are yet to be properly understood, and are begging for attention. Varying propinquities of three Asia Pacific states, Australia, New Zealand and Malaysia, offer a valuable comparison that exposes their remarkably different Antarctic pasts, presents and futures. Through investigation of the reciprocal and dynamic relationship between governmental policy and public engagement within each of these states, we find that Australia's Antarctic propinquity is arguably ambiguous with great potential, New Zealand's Antarctic propinquity is well established, and Malaysia's Antarctic propinquity is developing.

*Rebecca is a recent Master of International Affairs (ANU) graduate, having researched and commented on the ATS, health/operation of international Antarctic norms, and Antarctic philosophies. She is soon to commence postgraduate research in Antarctic Geopolitics at the University of Tasmania.*

### **Rohan Howitt**

University of Sydney

#### Small State Imperialism in the Subantarctic, 1880-1933

This paper will explore Australia's political, intellectual, economic, and cultural engagement with Antarctica in the late-nineteenth and early-twentieth centuries. By considering all aspects of Australian engagement with Antarctica – by examining failed companies and popular fiction alongside Mawson's expeditions and government legislation – it aims to build a more complete understanding of a key period in the development of Australia's relationship with Antarctica. This paper will argue that the best way to understand this relationship is through the lens of small state imperialism, the idea that small, newly formed states in this period sought to constantly expand their territories and spheres of influence in ways that echoed the imperial expansion of the 'great powers' of Europe and North America. These states pursued expansion because they believed it was fundamental to their survival. The paper will conclude by applying this concept of small state imperialism to various other states' Antarctic activities, including New Zealand, Norway, Japan, and Argentina, and considering the broader implications and applications of this idea.

*Rohan Howitt is a PhD student in the History Department at the University of Sydney. This paper draws on research undertaken for his PhD thesis, entitled 'Australia, Antarctica, and the Logics of State Formation, 1839-1933'.*

### **Adrian Howkins**

Colorado State University

#### Placing the Past: The McMurdo Dry Valleys and the problem of geographical specificity in Antarctic history

In a chapter in the recently published Antarctica and the Humanities collection, historian Alessandro Antonello challenges Antarctic historians and humanists to think more carefully about the concept of place in the southern continent. Beginning with a historical analysis of the tendency to treat

Antarctica as a unified whole, Antonello explores a number of countervailing movements that resist this totalizing vision. Despite the existence of these alternate perspectives, however, he suggests that “‘Place,’... remains a relatively under-explored concept and experience for Antarctic humanities (184).” With a focus on the McMurdo Dry Valleys this paper takes up Antonello’s challenge to think more deeply about the meaning of place in Antarctic history. Since the late 1950s, scientists have been attracted to the Dry Valley region by its geographical uniqueness; almost always, however, they have sought to make wider claims for their research that go beyond the region itself. How should we as historians treat the concept of “place” when the subjects of our research often used it so loosely? In addressing this question, and others like it, the history of the McMurdo Dry Valleys can help to take forward discussions about the nature of place in Antarctica.

*Adrian Howkins is an associate professor at Colorado State University in the United States. He is author of Frozen Empires: An Environmental History of the Antarctic Peninsula and The Polar Regions: An Environmental History. He is a co-PI on the McMurdo Dry Valleys Long Term Ecological Research site.*

### **Rachel Innes**

University of Canterbury

#### The Mobilisation of Antarctic Research

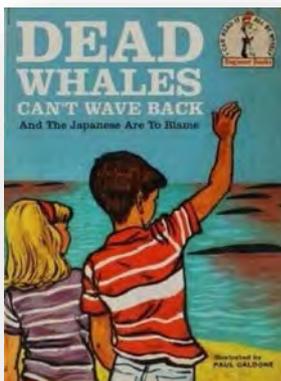
This research attempts an ethnography of Antarctic researchers, exploring the cultures of Antarctic knowledge production, and the milieus of Antarctic scientific practices to address how scientific and research activity becomes mobilised in an Antarctic context. The study is concerned with the networks of relations both human and material that enable or constrain Antarctic research and the frameworks through which Antarctic knowledge flows to become translated into scientific, governance, policy and other outcomes. This research explores the contextual frameworks and epistemologies of Antarctic research, and the cultures of scientific knowledge production in and on Antarctica using a mixed methodology of interviews, document and literature analysis.

*Rachel Innes is a Masters student with Gateway Antarctica and the Department of Anthropology at the University of Canterbury in New Zealand. Her research focuses on the many ways Antarctic research becomes enabled and/or disabled through networks of human and material relations. Rachel has a background in anthropology, development studies and biology.*

### **Julia Jabour**

University of Tasmania

#### The Messenger’s Motives: ‘Dead Whales Can’t Wave Back’ and other paradoxical representations of Antarctica



When this image came across my desk(top), it was impossible to ignore. This mock book cover by US illustrator, Bob Staake, invites consideration of other representations that are regularly played out in relation to Antarctica (where the Japanese take whales). Staake’s motive seems obvious, but is it? Is Staake anti-whaling, or anti-Japanese, or is he just being ironic? This presentation is inspired by the 1980s work of John L Hulteng on media ethics and the trend to tailor ‘news’ to fit what the public wants. That emerging trend is now commonplace in public messages through all types of media, and in image, film and performance in – dare I say it? – the post-

truth era. The Antarctic Oceans Alliance, for example, use celebrity (eg. endorsements by Leonardo DiCaprio and Silvia Earle) to sell their message for marine protected areas to both the public and the decision-makers. For Sea Shepherd Conservation Society, misinformation or post-truth (eg. 'since the 1970s the krill population has dropped by 80%') is used to induce donors to support Operation Krill and shut down the Australian Omega-3 complementary medicine business – in opposition to the decision-makers. Performance also underlines messages about sovereignty in Antarctica. For example, traditionally at formal meetings, Other Business begins with a round of brinkmanship between Argentina and the UK over language used to refer to the disputed territory of the Malvinas/Falkland Islands. Rapporteurs must be tempted to copy and paste text from the previous year's report. Curiously, however, in 2016 the usual exchange did not take place. I wonder why? Has the message changed?

*I am leader of the Ocean & Antarctic Governance Research Program at IMAS. I have been researching, writing and lecturing on polar governance for more than 20 years. I teach into a variety of marine and Antarctic law and policy undergraduate and postgraduate units and have had teaching assignments in Iceland, Malaysia, Vietnam and New Zealand. I have strong links to the Arctic law community through hosting the 7th Polar Law Symposium in Hobart in 2014. I am a SCOR Visiting Scholar to Iran in 2017.*

**Cyril Jaksic, Gary Steel, Kevin Moore, Emma Stewart**

Lincoln University

No two snowflakes: The fit between personnel and environment in Antarctic stations

Adjusting to any environment is a psychologically dynamic and complex process. Because of this, one cannot fully understand adjustment and adaptation without taking into account the interplay between key characteristics of the individual and defining features of the environment; that is to say, one must consider the fit between the individual and the environment in which she or he is immersed. In psychology, this is known generally as “person-environment fit” (P-E fit). Despite the many unusual aspects of living and working in the Antarctic regions, little research has been conducted that examines the experiences of Antarctic wintering explicitly using this theoretical stance. Therefore, a P-E fit model was developed in order to investigate the experiences of 14 personnel, across five stations, who were wintering on the southernmost continent. These personnel completed monthly questionnaires for the duration of their stays. Initial analyses of these data indicate that criterion variables for adaptation are, for the most part, in line with expectations of P-E fit theory. However, other variables deviated from the hypothesised relationships. The complete results of this study will be presented and implications discussed.

*Cyril Jaksic's work focuses on psychological adaptation to Isolated and Confined Environments (ICE). After completing a Master in social and affective Psychology at the University of Geneva, Switzerland, he joined Lincoln University, New Zealand, to complete his PhD under the supervision of Prof Gary Steel. His study investigates human adaptation to Antarctic stations with an organisational psychology approach. Cyril is a member of APECS and the liaison to the Joint Expert Group on Human Biology and Medicine.*

**Sumitra Jayaseelan**

University of Malaya

Development of Malaysia's Position in Antarctica: 1983 Till Present

The Question of Antarctica, raised by the Malaysian Prime Minister Mahathir Mohamed, raised eyebrows amongst the member states of the Antarctic Treaty in 1982. The criticism was accepted as

an agenda item of the 38th United Nations General Assembly (UNGA) in 1983. The agenda challenged many aspects of the way Antarctica was governed during that time. The paper aims to discuss the evolution of the Malaysian outlook on Antarctica, which began antagonistically, but eventually joined the system it had previously criticised. It also discusses the emerging Asian influence in Antarctica. Malaysia makes an interesting case study due to not only its non-claimant and non-member status, but also because it is a tropical country, with good relative distance from the South Pole and seemingly no justification for “interference” in Antarctic matters in the 1980s. Phenomenology method of getting the points of view of relevant people during periods of their leadership and influence will be used. This will be done through literature review as well as interviews. The paper will discuss Malaysia’s evolution from being the strongest critic of the Antarctic Treaty in 1983 to that of a state campaigning to become an Antarctic Treaty Consultative Party (ATCP) in 2017. Besides that, the emerging Asian influence in Antarctica especially China will be analysed, along with the impact of the Asian Forum on Polar Sciences (AFOPS).

*Sumitra Jayaseelan is a post-graduate student at the Asia-Europe Institute of the University of Malaya, Kuala Lumpur, Malaysia. She has served for 12 years in the Malaysian civil service as an Administrative and Diplomatic officer. She is due to undertake an 8-week internship at Gateway Antarctica, University of Canterbury from May – June 2017.*

### **Narimitsu Kato, Akiho Shibata**

University of Kobe

MPA as a tool for promoting scientific research?

A comparative case study

Many regional fisheries management organizations (RFMOs) establish area-based management schemes including marine protected areas (MPAs) as a tool for implementing ecosystem approach to the ocean management. In the Southern Ocean, most part of which constitute high seas, the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) plays a leading role in establishing and managing MPAs. In 2009, the first high sea MPA was established in the South Orkney Island south shelf. In 2016, after several years of negotiation, a vast MPA was established in the Ross Sea area. The 2016 Ross Sea MPA is significant in its emphasis on the promotion of scientific research in the area, as if the MPA is used as a tool for scientific research. This development, we argue, is prominent if one compares it with its lone precedent, the South Orkney Island south shelf MPA, and with traditional MPAs in other seas, such as those established by North East Atlantic Fisheries Commission (NEAFC), the jurisdiction of which encompasses a part of Arctic Ocean. Traditionally, the common objective in establishing a MPA has been to conserve marine living resources from threats including fishing, climate change and other impacts. This paper tries to shed some light on this unique aspect of the Ross Sea MPA by comparing it with other MPAs established by RFMOs and by placing the CCAMLR within a broader legal framework of the Antarctic Treaty System, including its Madrid Protocol which designates Antarctica as “a natural reserve devoted to peace and science”.

*Narimitsu Kato is a LL.D. candidate (2019), Graduate School of International Cooperation Studies (GSICS), Kobe University.*

*Akiho Shibata is a Professor and Director, Polar Cooperation Research Centre, Kobe University.*

## Marie Kawaja

Australian National University

### Crafting the 1959 Antarctic Treaty as an arms control instrument: the role of Australia

In 1958 President Eisenhower invited eleven countries: Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, the Soviet Union and the United Kingdom to come to Washington to discuss 'an effective joint means' of ensuring Antarctica is used for peaceful purposes only. These twelve powers were either claimant states or pioneers of Antarctic voyaging. They were also participants in the Antarctic Programme of the International Geophysical Year (1957-58). This criterion qualified them to negotiate the region's future governance. Between 1958 and 1959, the twelve conferred at 60 preparatory meetings to determine a new Antarctic order. At the outset, Australia called for the non-militarisation of the Antarctic, to ensure superpower rivalry did not turn the region into another theatre of the Cold War. At the conclusion of preparatory meetings a draft agreement emerged that would be later adopted at the Antarctic Conference (October-December 1959) as the 1959 Antarctic Treaty. The Treaty would be subsequently hailed as the first arms control instrument negotiated during the Cold War. The focus of this paper is on Australia's role in achieving this outcome.

*Dr Marie Kawaja, has a PhD in History from the Australian National University and is currently a School Visitor, concluding a history of the Australian Antarctic Territory. Previously, an official with the Australian Department of Foreign Affairs and Trade (DFAT) and the Australian Parliament, with assignment to the Antarctic Section of DFAT during the Australian-French initiative, later the 1998 Protocol on Environmental Protection to the Antarctic Treaty (Madrid Protocol). She also compiled the Antarctic Treaty Consultative Documents from 1960s to 1980s.*

## Kanae Komaki, Nives Dolsak

University of Washington

### Monitoring systems to be considered in the Antarctic deep – as analogous to deep seabed mining regulations and practices in the Area

This study compares two regimes of deep seabed mining practices, one developed by the Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA) and the International Seabed Authority (ISA). We review the existing scholarly literature and organizational reports to determine effectiveness of environmental monitoring systems in deep sea. This research is very timely given that the ISA is currently exploring new approaches to regulation of the exploitation of mineral resources. Further, the study's focus on the monitoring systems responds to a concern about the weak institutional support for monitoring as established in the ISA's regulations. Under the Antarctic Treaty System, science and technology cooperation has been a strong institutional tool in ocean management. The existing multinational observing projects, such as the Southern Ocean Observing System, and technological innovations in sensors and platforms offer important potential ways to increase the monitoring capacity. This study examines how these technological platforms could be applied as in monitoring systems and what institutional innovations will be required to utilize them for monitoring of the human impacts in the Antarctic deep sea.

*Kanae Komaki is a physical oceanographer and master's candidate at the School of Marine and Environmental Affairs of the University of Washington, Seattle, USA. After she received her first PhD. degree in Natural Environmental Studies from the University of Tokyo, Japan, in 2007 (thesis theme: Study of deep ocean circulations in the North Pacific using lowered acoustic Doppler current profiler), she have enhanced extensive oceanographic direct observation and seabed-mining assessment*

*experience in non-profit (Ocean Policy Research Foundation, 2007-2011), corporate (The General Environmental Technos Co. Ltd., 2011-2014) and academic settings (Kochi University, 2014-2016). In 2016 Fall, she newly started an exciting adventure in marine policy field toward her second master's degree. Her current primary interest is environmental monitoring system in deep-seabed mining practices in international waters.*

## **Lorne Kriwoken, Alan D. Hemmings**

University of Tasmania, University of Canterbury

### Urban Antarctica: The Madrid Protocol and 'Antarctic Specially Managed Areas'

As the depth of human activity increases in Antarctica, better planning and coordination is needed to avoid or reduce the risk of environmental impacts. In particular locations, the challenge is essentially now one of managing quasi-urban issues, elsewhere understood as land use planning. Since the Protocol on Environmental Protection to the Antarctic Treaty (the Protocol) entered into force in January 1998, a de facto land use planning tool has been available through its Annex V, "Area Protection and Management". Within this annex, the category of Antarctic Specially Managed Areas (ASMAs) is intended to assist in the planning and coordination of activities, avoid possible conflicts, improve cooperation between Parties or minimise environmental impacts. We critically assess the conceptualisation of ASMAs, their application to spatial and temporal facets of Antarctic urbanisation, and the effectiveness of the seven existing ASMA designations. We argue that although the ASMA process offers a critical tool for achieving environmental commitments under the Antarctic Treaty System, that process is not yet fully realised in Antarctic practice. Suggestions are made to improve methodological imperatives for ASMA designations and we canvas a range of future ASMA candidates.

*Dr Kriwoken is on the Editorial Board of Polar Record and the Antarctic & Southern Ocean Law and Policy Occasional Papers, University of Tasmania. He is the past chair of the Marine, Coast and Estuarine Committee of the Tasmanian State of the Environment Report, a member of the Tasmanian National Parks and Wildlife Advisory Council, a Member of the World Commission on Protected Areas (IUCN) and a member of the Environment Institute of Australia and New Zealand.*

*Dr Alan D. Hemmings is a specialist on Antarctic governance based in Perth in Western Australia, and an Adjunct Associate Professor at Gateway Antarctica Centre for Antarctic Studies and Research at the University of Canterbury in Christchurch, New Zealand. His Antarctic experience includes time south with the British, French and New Zealand national programmes, Greenpeace, and as a New Zealand Government observer on Antarctic tourism activities. He participated in dozens of Antarctic Treaty System diplomatic and scientific meetings between 1989 and 2010. His current Antarctic work focuses on its geopolitics: globalism's effect on its governance and the contemporary roles of territorial sovereignty and nationalism. Recent publications include consideration of the Antarctic in History Lessons for the Arctic: What International Maritime Disputes Tell us about a New Ocean (2016: CSIS), Handbook on the Politics of Antarctica edited with Klaus Dodds and Peder Roberts (2017: Edward Elgar); International Polar Law edited with Donald R. Rothwell (Forthcoming 2017/18: Edward Elgar).*

## **Sarah Laverick**

### Through Ice and Fire - the story of the Aurora Australis

The wild expanses of Antarctica have long been a setting for many famous exploits and misadventures. The famous tales of heroic-era explorers such as Shackleton, Mawson and Scott continue to inspire humankind to this day, and their ships, the Endurance, Aurora and Terra Nova are

vivid characters in their fateful voyages of discovery. Australia's current Antarctic flagship, the Aurora Australis has likewise secured her place in Antarctic history. The Aurora's bright orange hull is instantly recognisable and emblematic of Australia's Antarctic Program. Since her maiden voyage in 1990 the Aurora has completed 145 voyages, carried thousands of people to and from Antarctica and enabled countless scientific achievements. But during her lifetime the Aurora has also overcome severe challenges and narrowly averted disaster. It is this uncanny ability to repeatedly triumph over adversity that inspired me to tell her story. It is a story of adventure, knowledge and danger set against the backdrop of the harshest environment on earth. I draw on the experiences of people present during key events during her life, and through this human connection the Aurora's own character appears.

*I have a unique knowledge of the life and history of the Aurora Australis; my family owned and operated the shipyard where the Aurora was built and I worked at the Australian Antarctic Division for 12 years. I have sailed on board the Aurora three times and have spent over 190 days at sea in Antarctic waters.*

### **Consuelo León Wöppke**

Hemispheric and Polar Studies Centre

#### Chilean Antarctic Historiography: Main Contributions and New Trends

This work analyses the evolution of the Chilean Antarctic historiography from late 20th century until 2016. The main goal is to describe and examine this process and its probable links to Antarctic historiography in other Latin American nations. The methodology was simple but effective: books and articles about Antarctic topics -and published in Chile during the study period- were collected and analysed. At the same time, there were identified the most prolific authors, as well as the topics that have attracted more attention over the years. The result is a compilation of significant works by Chilean Antarctic specialists and scholars that have made an important contribution to the Antarctic knowledge, and that not necessarily represent the official views of the Chilean Ministry of Foreign Affairs.

*Consuelo León Wöppke (PhD Southern Illinois University) is a specialist in Antarctic history and international relations. She has been awarded scholarships from the Fulbright Association and the American Association of University Women (United States). Currently, Dr León is a senior researcher at the Hemispheric and Polar Studies Centre (Chile) and the head of the Chilean Delegation to the Latin American Antarctic Historians Association.*

### **Daniela Liggett, Bob Frame, Neil Gilbert, Fraser Morgan**

University of Canterbury, Landcare Research, New Zealand, Constantia Consulting Ltd., Landcare Research, New Zealand

#### Is it all going south?: Four Antarctic futures

The Antarctic Treaty Parties are currently facing several challenges, ranging from increasing human activity on the continent and in the Southern Ocean, to the effects of climate change on the Antarctic environment and on National Antarctic Programme operations. At the same time, the involvement of a growing number of Parties with different motivations and interests complicates decision-making at Antarctic Treaty Consultative Meetings. The future for Antarctica, and human activities in the region, is uncertain, and many plausible scenarios can be imagined. Our presentation explores four possibility spaces within which Antarctic futures might unfold. These possibility spaces are defined by differing interactions of two interdependent variables: the level of human engagement with Antarctica and the strength of Antarctic governance through the Antarctic Treaty System. We discuss

the political, economic, social, technological, legal and environmental dimensions of anticipated developments related to Antarctic governance, tourism and research and identify key drivers behind these developments. Drawing on these drivers, four alternate scenarios for Antarctic futures are explored: a collaborative-conservationist, a collaborative-exploitative, an individualistic-conservationist and an individualistic-exploitative scenario. We argue that the collaborative-conservationist and collaborative-exploitative scenarios require determined efforts to reach them, i.e. a “push”, while the other two scenarios can be considered as inevitable if lethargy among the Antarctic Treaty Parties prevails. We conclude that the different Parties will need to be prepared to ask themselves how they want to ‘shape’ Antarctica futures and that their answers to this question are likely to affect the future of the rest of the world.

*Daniela Liggett is a senior lecturer at the Centre for Antarctic Studies and Research (Gateway Antarctica) at the University of Canterbury in Christchurch, New Zealand. She is a social scientist with a background in environmental management, Antarctic politics and tourism, and her research evolves around the manifold aspects of human engagement with polar environments. She is currently involved in collaborative research on the topics of Antarctic futures, Antarctic gateway cities, wilderness in an Antarctic context, and Antarctic science-policy interactions. Daniela has contributed to the Scientific Committee on Antarctic Research’s First Antarctic and Southern Ocean Horizon Scan, is a co-chair of the Scientific Committee of Antarctic Research’s (SCAR) Humanities and Social Sciences Expert Group and a member of both SCAR’s Standing Committee on the Antarctic Treaty System and its Capacity Building, Education and Training Committee. She is also one of the lead authors for polar issues for the United Nations Environment Program’s flagship publication, the Global Environmental Outlook. Daniela is one of the co-chairs of the Societal and Economic Research and Applications (SERA) subcommittee of the World Meteorological Organization’s (WMO) Polar Prediction Project (PPP) and serves on the PPP Steering Group. She is on the editorial boards of The Polar Journal, Polar Geography and Advances in Polar Science.*

## **Bryan Lintott**

University of Cambridge

### The Central Intelligence Agency and Antarctica: 1947-59

In the post-WWII era Antarctica provided the United States of America with potential opportunities, ongoing conundrums and several challenges. Informing American policy and action was the Central Intelligence Agency (CIA) that analysed Antarctic matters in geographical, geopolitical, geostrategic, diplomatic and scientific frameworks – especially in the context of the International Geophysical Year (IGY). During the 1950s, the agency studied all the Antarctic nations and identified Antarctic related organisations and individuals. CIA activity in Antarctica included field operations to gather intelligence. Given the extent of the CIA’s role in the United States’ awareness of Antarctic matters and, in particular, the related concerns and aims of the USSR the intriguing historical question arises: did the CIA have a role in establishing Antarctica as a continent of peace and science through the Antarctic Treaty? The presentation will provide a critique of the CIA’s 1950s epistemological framework, analysis of Antarctic matters and its role in America’s Antarctic diplomatic endeavours to establish the Antarctic Treaty.

*Bryan Lintott is based at the Polar Museum, Scott Polar Research Institute, University of Cambridge. His latest exhibition examined the historical, geopolitical and cultural contexts of artworks and photographs from Operation Deep Freeze I. He is a member of the university’s Cambridge Intelligence Seminar where intelligence and security related academics and practitioners present and discuss historical and contemporary issues. This presentation will be based on archival research in Washington*

DC, Cambridge and London. Recently, he successfully defended his PhD on 'Scott's and Shackleton's Huts: Antarctic Heritage and International Relations'.

## **Nengye Liu**

University of Adelaide

### The European Union and the Conservation of Marine Living Resources in Antarctica

Although most of its territory is situated in the northern hemisphere, the EU is inextricably connected to Antarctica. France, as a key EU Member State, retains sovereign claims in the Antarctic region. Norway, which is a member of the European Economic Area (EEA) and closely involved within the EU decision making process, also has sovereign claims in Antarctica. 12 of 28 EU Member States currently enjoy Consultative status under the Antarctic Treaty, while eight others are non-Consultative Treaty Parties. The EU itself is a contracting party to the CCAMLR.

The EU has committed that the Union shall act to help develop international measures to preserve and improve quality of the environment and the sustainable management of global natural resources, in order to ensure sustainable development (Article 21 (2) (f), Treaty on European Union). Most importantly, conservation of marine biological resources under the common fisheries policy is an exclusive competence for the EU (Article 3, Treaty on the Functioning of the European Union (TFEU)). This paper will examine to what extent the EU could shape the development of international law on the conservation of Antarctic marine living resources. It focuses on the impacts of the EU's IUU Regulation as well as her marine protected areas proposals (e.g., joint proposal with Australia and France on establishing MPA networks in the East Antarctica) on fishing in the Southern Ocean.

*Dr Nengye Liu is a Senior Lecturer at the Adelaide Law School, University of Adelaide, Australia. He was educated in Wuhan University (China, LLB and LLM) and Ghent University (Belgium, Doctor of Law). Prior to moving to Adelaide, he had worked in China, Singapore, Germany, United Kingdom and NSW. Dr Liu's research centres on enhancing global governance regime for better protection of the oceans, with particular focuses on the role of China and the EU. Dr Liu has published more than 50 articles in fields of the law of the sea and international environmental law. He has presented research results in more than 20 countries across five continents; convened three international conferences in Scotland (EU-Arctic 2015), Australia (South China Sea 2016) and China (Polar Governance 2017); and succeeded in over 20 funding applications, including, for example, a prestigious European Union Marie Curie Fellowship. Dr Liu has held visiting positions at universities of Cambridge, Tsinghua, Montreal, Lapland, Tromsø, Trier and Tasmania. He is also an adjunct fellow of key institutes in China, such as Shanghai Jiao Tong University and Wuhan University. Dr Liu serves as the Associate Editor of the Yearbook of International Environmental Law (Oxford University Press).*

## **Nelson Llanos**

Playa Ancha University

### Populating Antarctica: Chilean Families in the White Continent, 1984-1985

In November 21st, 1984, a baby named Juan Pablo was born in Antarctica. He was the son of one of the seven married couples that the Chilean government had sent to the white continent earlier that year, to be part of Villa Las Estrellas.<sup>1</sup> This small town -located on King George Island- was the result of a political strategy designed to strengthen Chilean rights in the Southern Polar region, during a time of growing international instability. Since mid-1970's, it was believed that increasing world power's

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<sup>1</sup> Stars Town.

interests in exploiting Antarctica's natural resources were putting at risk the Treaty System, which – consequently- could stimulate international territorial disputes in the area. In that complex scenario, small countries, like Chile, would face significant disadvantages to preserve what they considered part of their national patrimony. Although more than thirty years have passed since the creation of Villa Las Estrellas, the exceptional story of the founders of this Antarctic settlement remains widely ignored. Based on personal interviews with some of those families, this exploratory work examines their reasons to leave their “normal lives” behind, and it analyses their singular experiences in Antarctica. It is suggested that –contrary to what it might be thought- the Chilean families did not decide to become Antarctic settlers due to political or nationalist motivations. Indeed, their reasons to live in the frozen continent, as well as their perspectives about the Antarctic question, were clearly different from the official position of the Chilean government.

*Nelson Llanos is a professor of world contemporary history at Playa Ancha University, and is the director of the Hemispheric and Polar Studies Centre (Chile). He received a M.A degree in international relations from Viña del Mar University, and was granted with a Fulbright scholarship for doctoral studies. Professor Llanos is now a PhD. candidate (Ohio University, United States) and is writing his dissertation. His research interests are in the areas of US-Latin America relations, cold war in the western hemisphere, and history of Antarctica. During the last ten years, professor Llanos has participated in congresses and conferences about the history of the white continent in Argentina, Chile, Uruguay, and the United States, and has published articles about this topic in academic journals. Professor Llanos is currently leading a research project about the experiences of Chilean families that have lived in Antarctica since the 1980's.*

## **Cristian Lorenzo**

CONICET-CADIC

### The Meanings of a Marine Protected Area in the Ross Sea from New Zealand

In 2012, New Zealand and the United States submitted a joint proposal to the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) to create a Marine Protected Area (MPA) in the Ross Sea. In 2016, CCAMLR members decided by consensus to establish the mentioned MPA. A question that begs to be asked is, what does the creation of a Ross Sea MPA actually mean for New Zealand?

This conference paper attempts to tackle this question and presents the results of qualitative research undertaken in New Zealand over the last five months. The research involved the analysis of official documents as well as media analysis, semi-structured interviews conducted in person in New Zealand and via Skype. The data collected was assessed against their situational background and viewed through different contextual lenses. First, the data was analysed within a context of international politics, in particular with a focus on the process to create Marine Protected Areas in an international arena. Second, the data was viewed within the broader New Zealand foreign policy on Antarctica and the Southern Ocean.

The research results indicate that, from a New Zealand perspective, the relevance of the establishment of a MPA in the Ross Sea entails more than simply promoting the conservation of an Antarctic marine ecosystem with a science-based approach. As this presentation will argue, CCAMLR's landmark decision to establish an MPA in the Ross Sea endorsed and supported New Zealand's long-term diplomatic strategy towards Antarctica and the Southern Ocean.

*Cristian Lorenzo (Argentina) has a PhD in International Relations. He is visiting scholar at Gateway Antarctica, University of Canterbury, New Zealand. He is a full-time researcher at the CONICET-CADIC*

*(Consejo Nacional de Investigaciones Científicas y Técnicas- Centro Austral de Investigaciones Científicas) and Lecturer at the Instituto de Ciencias Polares, Ambiente y Recursos Naturales, Universidad Nacional de Tierra del Fuego, Ushuaia, Argentina.*

## **Anche Louw**

Antarctic Legacy of South Africa

Archiving and the way forward.

South Africa does not have a dedicated Polar Institute/ Antarctic Division; therefore the role of ALSA is absolutely crucial i.e. mainly archiving the history of polar science within the South African National Antarctic Programme. This has led to the discovery of many old, un-archived, un-digitised scientific journals which are unavailable elsewhere. The first step is to digitise these old documents for archiving purposes, so that they can then be communicated to the public. This process indicates that ALSA not only preserves the history of South Africa's involvement in polar research, but also promotes this to the lay public. The Antarctic region is then better understood through the human aspects behind the science. In this presentation I would like to demonstrate the full communication process that is followed, as well as the great importance of social media. This leads to not only science communication but also to the communication of the human history behind science.

*I am the science communicator for the Antarctic Legacy of South Africa (ALSA). My focus is mainly, but not only, on promoting South Africa's involvement in the Antarctic and sub-Antarctic regions by communicating not only the science being conducted in these regions but also more about the humans behind the science. I overwintered on the sub-Antarctic Marion Island, to do the fieldwork for my Master's degree in Botany, therefore I have sound understanding regarding the humans behind the science in the Antarctic and sub-Antarctic.*

## **Cornelia Lüdecke**

University of Hamburg

The Academic Alpine Club and its role in the Recruitment of Members for German Antarctic Expeditions

When ambitious young students and mountaineers wanted to set themselves apart from the existing German Alpine Club Section Munich, they founded their own Academic Alpine Club Munich (AACM) in November 1892. In early 1901, one of the members, Hans Gazert, was appointed physician of the German South Polar Expedition under the leadership of Erich von Drygalski. Later in the year Gazert informed his friend and founding member of AACM Josef Enzensperger – who at that time was wintering over at the meteorological observatory on top of the Zugspitze (1900/01) – that Drygalski was looking for a meteorologist for the base station on Kerguelen. Enzensperger applied for and got the job. When Gazert was sailing to Antarctica, Wilhelm von Goedel joined the AACM in winter 1901/02. Two years later Goedel moved to Berlin and became one of the founding members of the Academic Alpine Club Berlin (AACB), where Gazert gave a report of his Antarctic experiences in 1904. For some years Goedel moved back and forth between Berlin and Munich and simultaneously alternated as active member between the two Academic Alpine Clubs. In this context Goedel came to know Drygalski on the occasion of Gazert's talk at the AACM. Ultimately Goedel signed up as physician in Wilhelm Filchner's Antarctic Expedition (1911-1912). In AACM circles the Austrian mountaineer Dr Felix König was well known as leader of long hikes with members of AACM before he became Filchner's alpinist. The talk present will focus on the merits of alpine experience, the Academic Alpine Club network associated with Munich and Berlin, and the reasons why some of its members were chosen to participate in German Antarctic expeditions.

*Cornelia Lüdecke has a diploma in meteorology (1980) and a PhD in History of Natural Sciences (1994) from the Ludwig Maximilians University at Munich. In 2002 she finished her second thesis (Habilitation) at the University of Hamburg. Since then she was teaching as "Privatdozent", until she received the title "Professor" in 2016. In 1991 she founded the History of Polar Research Working Group of the German Society of Polar Research which she is leading until today. Since 1995 she is chairing the History of Meteorology Specialist Group of the German Meteorological Society. 2001 she was elected Vice President and 2006-2009 she served as President of the International Commission on History of Meteorology. In 2004 she founded the Action Group on History of Antarctic Research within the Scientific Committee on Antarctic Research. In 2010 she received the Reinhard Süring Medal from the German Meteorological Society and in 2012 she was elected as corresponding member of the International Academy of the History of Science in Paris. She has published 15 books and proceedings and about 180 papers.*

## **Ben Maddison**

University of Tasmania

### Indigenizing Antarctic history

While much of the credibility of the archetypal narrative of Antarctic discovery and exploration as the drama of white mainly middle class men has been eroded by critiques of its gender and class occlusions, the issue of race has largely been ignored. On the empirical surface, the absence of an indigenous Antarctic population provides a common-sense rationale for this lacuna. Yet, as I argue in this paper, indigeneity was central to how knowledge about Antarctica was constructed. An 'absent presence', issues of indigeneity always hovered just beneath the surface of Antarctic consciousness. Polar indigenous knowledges, technologies and sometimes people were crucial although often downplayed components of early Antarctic exploration. Moreover, the idea that a landmass the size of Antarctica could be uninhabited was so counter-intuitive to minds thoroughly drenched in colonialism, that the possibility of encountering an indigenous population accompanied Antarctic explorers, even into the 1930s. And it was the absence of a process of violent human dispossession on this true terra nullius, that allowed Antarctic exploration to be construed as ethically relatively unambiguous – a forcing ground for 'the highest qualities of human endeavour', the foundation of the tropes of the 'Heroic Age', and arguably the fundamental historical condition that allowed Antarctica to be constructed as a Continent of Peace.

*Ben Maddison holds a PhD from University of Wollongong, where he is now an Honorary Fellow. He is also a Research Associate at IMAS/UTas. He is the author of *Class and Colonialism in Antarctic Exploration, 1750-1920* and is currently writing *The Southern Ocean: A History* (forthcoming, Routledge, 2018).*

## **Ephaphrus Mamabolo**

University of Canterbury

### The effectiveness of international environmental regimes: a case study on the Protocol on Environmental Protection to the Antarctic Treaty

International environmental regimes are coordinated by their signatories to solve or mitigate environmental problems. Few studies have been undertaken to assess the effectiveness of the Protocol on Environmental Protection to the Antarctic Treaty (Protocol). Over more than two decades since the adoption of the Protocol in 1991, human activities in the Antarctic as well as Antarctic politics have changed dramatically. In that period, fourteen countries have acceded to the Antarctic

Treaty, and have sought to establish their own permanent presence in the Antarctic, while some established Antarctic Treaty Parties have further expanded their existing logistical and infrastructure footprints. The number of tourists has also increased significantly since 1991. Assessing the effectiveness of the Protocol requires a determination of the extent to which it has achieved its objectives or solved identified environmental problems. This will be achieved by analysing the extent to which identified elements of the Protocol, such as Articles 6 on cooperation and 13 on domestic compliance, have been or are being addressed by the signatories to the Protocol; both at the domestic as well as at the international level. In this presentation, Chile is considered as a case study.

*Ephaphrus Mamabolo is a PhD candidate at Gateway Antarctica, University of Canterbury. His thesis assesses the effectiveness of the Protocol on Environmental Protection to the Antarctic Treaty. He is a recipient of the South African National Research Foundation (NRF) scholarship. His Masters is in Public Management from Tshwane University of Technology, South Africa.*

## **Joy McCann**

Australian National University

### Into the maelstrom: Science and natural history in the Southern Ocean

The Southern Ocean is the most remote and least understood of the world's oceans and seas. Wind, ice and fog loom large in heroic narratives of maritime discovery, whaling and Antarctic exploration, but few historians have examined the nature of the Southern Ocean environment and its place in Western and Indigenous histories. This paper explores the rise of scientific voyaging in the Southern Ocean from the late 18th century, and examines how such voyages transformed Western ideas about the nature of this stormy ocean in the high southern latitudes. It forms part of a larger project on the environmental and human history of the Southern Ocean and its emerging role as a barometer of global climate change.

*Joy is an Australian environmental historian with research interests in ocean histories and ecologies, landscape and the role of memory, and environmental change in settler societies. She has worked extensively as a public historian in the cultural heritage, museums and libraries sector, and is currently a Visiting Scholar at the ANU School of History and Honorary Research Associate with the Centre for Environmental History. Joy holds a PhD (History) from the ANU and a Master of Arts (Public History) from Monash University.*

## **Patricia Millar**

University of Tasmania

### Multiple meanings within visual documentation by the Swedish South Polar Expedition (1901-1903): the tension between emotive/aesthetic and analytic/scientific motifs

This paper offers a discursive examination of visual documentation from Otto Nordenskjöld's Swedish Antarctic Expedition 1901-03, which was beset by major problems. A shore party of six men wintered on Snow Hill Island on the Antarctic Peninsula, performing scientific research. At the end of the 1902 winter their ship, Antarctic, could not reach them as planned, and in an attempt to reach the shore party by going overland, three men were landed at Hope Bay where they were forced to winter with minimal supplies. The Antarctic was crushed in the pack ice and foundered, its crew wintering on Paulet Island. All three parties were rescued by an Argentine naval vessel in November 1903. The expedition nevertheless conducted a comprehensive scientific program with much visual documentation included in the many books published by expedition members. All sought subjects in line with the scientific nature of the expedition, but systematic analytic/scientific motifs were often

juxtaposed with emotive and aesthetic ones. Images contain textual arrangements and discursive practices, producing multi-layered cultural messages in which creator, subject and viewer all play their roles, and which rely on cultural and historical contexts and on experiential knowledge. The images examined here draw in particular ways on prevailing Heroic Era discourses. Some have a special power to suggest psychological and emotional aspects of the expeditioners. They are a vivid record of their creators' ways of seeing, and of their ways of resolving the tension between emotive/aesthetic and analytic/scientific motifs in documenting Antarctic exploration.

*Dr Pat Millar's Bachelor of Antarctic Studies (Hons) (University of Tasmania 2009) and Master of Science – Social Sciences (University of Tasmania 2013) theses examine Heroic Age photography. Her articles on Herbert Ponting, Keith Jack, Frederick A. Cook and other expeditionary photographers have appeared in the Polar Journal (2012) and Polar Record (2015, and in press 2017).*

## **Meredith Nash**

University of Tasmania

Gender on ice: Preliminary findings from a longitudinal study of women's experiences of a transformational leadership program in Antarctica

Women are underrepresented in science, technology, engineering, mathematics, and medicine (STEMM) fields and in leadership positions worldwide. For instance, Australian women comprise more than half of science PhD graduates and early career researchers, but just 17% of senior academics in universities and research institutes. Ample research has shown that at almost every step of the STEMM pipeline implicit biases and discrimination, gender stereotyping, family obligations, and the lack of role models or mentors are barriers to women's leadership. This paper will present preliminary findings from a longitudinal mixed methods study that examines the experiences of an international group of 25 women who participated in Homeward Bound (HB), a 21-day transformational leadership programme for women in STEMM that launched in 2016. The programme takes place in Antarctica, a deep remote location, in order to draw women out of their comfort zones and to maximise experiential learning. This qualitative project is gathers data from in-depth individual interviews, reciprocal interviews, focus groups, and video diaries in order to illuminate the complexity of women's leadership experiences and identities over time. This paper will use an intersectional analysis framework to examine how categories of identity interact with the contexts and backgrounds of participants to shape and influence their experiences of HB using data collected before and during the voyage. Specifically, I will examine how HB program participants conceptualise 'successful' leadership pre-voyage and how the Antarctic environment and adventure-based experiential course design of HB facilitated their leadership development during the voyage.

*Meredith Nash is a Senior Lecturer in Sociology at the University of Tasmania. Her work focuses on the gendered body as a way of understanding the relationships between people, place, politics, and culture. She is the author of Making Postmodern Mothers (2012) and the editor of Reframing Reproduction (2014). Her new co-edited book, Reading Lena Dunham's Girls, will be published in May 2017.*

## **Stephen Nicol**

University of Tasmania

Structure and chaos in polar marine ecosystems

The ocean, far from being a homogeneous soup, is highly structured both vertically and horizontally. Many of these structures change seasonally. For example, ice is there in the winter but gone in the

summer. Animals weave their lives around these surfaces. Some animals also exploit the depths whereas others are restricted to the thin layer of sunlit water near the surface or to the silty ocean floor. Studying marine life has meant a progression in our knowledge from an unknown soup of organisms to a highly structured set of ecosystems. These steps in our understanding came from both changes in technology and, importantly, through changes in our attitude to the sea's inhabitants. In this presentation I will illustrate how our understanding of the ocean's inhabitants has changed as our technology has improved and as our attitude to animal life has evolved. Advances in knowledge come as much from changes in mindset as from advances in electronics.

*Prof. Stephen Nicol: BSc. (Hons.) Zoology, Aberdeen, MSc. Oceanography, Southampton, PhD. Biology, Dalhousie, MA, Creative Writing, University of Tasmania. I have conducted research, on many aspects of krill biology and the Southern Ocean ecosystem. I worked at the Australian Antarctic Division as a Research Scientist and Program Leader from 1987 to 2011. I have published numerous articles, including management papers, refereed articles, book chapters, popular science, short fiction and travel writing. Currently I am Adjunct Professor at the Institute for Marine and Antarctic Studies and the University of Tasmania.*

## **Miranda Nieboer**

University of Tasmania

80°08' S, 163° 57' W: Ice, Interior and Inhabitation

80°08' S, 163° 57' W, on the vast surface of the Ross Ice Shelf, defined the location of the Bolling Advance Weather Base, the accommodation of Richard Byrd during the winter of 1934. These coordinates, however say nothing about the base's relationship to the depths of the ice mass itself. While Antarctic stations of recent decades are climatically sealed off from their extreme environment, the huts of the earlier explorers were much more permeable structures. Byrd's hut, uniquely, was deliberately built in the ice of the continent's interior. This confined habitable pocket of air inside the ice, served as laboratory for scientific observations of atmospheric phenomena and for investigation into the expedition leader's own psychological response to freezing solitude. Byrd's hut, which is literally of the environment, offers the opportunity to investigate how Antarctica, as it challenges the human senses, alters a conventional understanding of interior space and the concept of interiority itself. This paper contributes to the short history of human habitation in Antarctica and thus to an emerging body of knowledge of human engagement with the continent. The study is informed by a close reading of the collaborative autobiography 'Alone' alongside archival research and architectural analysis. The sub-glacial interior of Byrd's hut, I argue, is not only an observatory for the weather and the human psyche, but also for interior space itself.

*Miranda Nieboer, MArch., BSc (Hons), has a background in Architecture and is currently PhD candidate at the University of Tasmania. Her interdisciplinary PhD research 'Antarctic Interiors' moves between Antarctic Studies, the Humanities and Architecture.*

## **Hanne E. F. Nielsen, Cyril Jaksic**

University of Tasmania, Lincoln University

Extremity and the Mundane: Recruiting Antarctic Personnel

Antarctica's tough climatic conditions are infamous; the continent is known as the coldest, driest, highest and windiest. It is remote, difficult to access, and a place where extremity reigns. Yet for thousands of scientists, field staff, cooks, mechanics, pilots, and other support personnel, Antarctica is also a workplace. The complex logistics required to send an employee to Antarctica is expensive and

time-consuming. It is therefore important for National Antarctic Programmes to ensure that the people they send are capable of performing well under unusual and isolated conditions. If someone has difficulties adjusting to such an environment, their ability to efficiently perform their task could be compromised. Media studies and psychology both have a role to play when analysing Antarctic personnel recruitment. Before heading south, most recruits will have interacted with Antarctica through various forms of media – including the recruitment advertisement. Discrepancies between the anticipated experience of Antarctica – fuelled by texts and imagery of the place that circulate back home – and the reality can also lead to disappointment. Working on the continent is not, it turns out, all about taking “selfies” with Happy Feet. This paper examines the ways different National Antarctic Programmes have advertised positions on “The Ice,” in order to reveal how Antarctica has been represented as a working environment in recent times. We ask what themes emerge from job advertisements and listings; how existing narratives of Antarctica are utilised in recruitment; how these help to create particular expectations; and the potential consequences of incongruity between Antarctica as portrayed in recruitment material and the reality on the ground.

*Hanne Nielsen specialises in representations of Antarctica in advertising, media, and popular culture. After completing a Masters in Antarctic Studies at the University of Canterbury in Christchurch, she moved to Hobart to take up a PhD examining Antarctica in advertising as part of Dr Elizabeth Leane’s “Integrating the Humanities into Antarctic Studies” project. Hanne is a member of the SCAR Antarctic Humanities and Social Sciences Expert Group, and a vice President of the Association of Polar Early Career Scientists. She spends her summers in the Antarctic Peninsula, working as a tour guide, and her winters in Hobart. She tweets @WideWhiteStage.*

*Cyril Jaksic’s work focuses on psychological adaptation to Isolated and Confined Environments (ICE). After completing a Master in social and affective Psychology at the University of Geneva, Switzerland, he joined Lincoln University, New Zealand, to complete his PhD under the supervision of Prof Gary Steel. His study investigates human adaptation to Antarctic stations with an organisational psychology approach. Cyril is a member of APECS and the liaison to the Joint Expert Group on Human Biology and Medicine.*

## **Kimberley Norris, Rachel Grieve**

University of Tasmania

### Near, Far, Wherever You Are....Social Media Goes On

It is increasingly apparent that in addition to a source of information and entertainment, social media can serve as an important medium for social support, and feelings of social connectedness. However, the degree to which this is relied upon in extreme environments to serve such purposes remains largely unknown. Furthermore, the degree of emotional contagion occurring through this medium also remains understudied - that is, the degree to which a person’s mood is influenced by the content of social media interactions, and how that then shapes their experience - particularly in extreme environments. This presentation will focus on new and expanding opportunities regarding the role of social media in shaping the experience of individuals visiting, and living, within extreme environments.

*Dr Kimberley Norris is a Senior Clinical Psychologist and Senior Lecturer at the University of Tasmania, with research interests in extreme environments. She is the consultant clinical psychologist to the Australian Antarctic Division, and has published studies in the area of Antarctic Psychology.*

*Dr Rachel Grieve is a Senior Lecturer at the University of Tasmania, with research interests in Cyberpsychology.*

## Victoria Nuviala

University of Buenos Aires

### Estrangement in Antarctica: The experience of the strange in the travel diaries of whalers and scientist (20th Century)

During the 20th century, the experience of estrangement became an object of study of disciplines such as: philosophy, anthropology and ethnology, also a theoretical approach in Daily Life Studies, and an artistic strategy of the avant-garde's. Antarctica, though very promising for studying the figure of the strange and the experience of estrangement, have been rarely approached from this perspective. The aim of this lecture is to explore how the experience of estrangement appears on different travelers, sometimes as a result of an extraordinary event and many others as an outcome of the daily life routine. Furthermore, we will explore how the figure of the strange materializes along these journeys in the form of landscapes, animals, human beings, weather phenomenon or even familiar objects. To that end, we will analyze the Travel Diaries of three explorers on their trips to Antarctica during the first decades of the 20th Century. The first one, is an unpublished diary written by a Norwegian whaler who worked at the land station in Deception Island during the season of 1915/1916, the second one belonged to a young British scientist, Thomas Wyatt Bagshawe who participated of the British Expedition to Graham Land -1920/1922-, and the third one corresponds to Jean Baptiste Charcot on his second trip to Antarctica on board the *Pourquoi Pas?* between 1908 and 1910.

*Archaeologist at the University of Buenos Aires. Nuviala is currently working towards a PhD in Daily life of Industrial Whalers in Antarctica (20th Century). She is Assistant Professor of History of Modern Architecture at Faculty of Architecture & Urbanism (UBA) and participated on the Argentine Antarctic Program as a Research Assistant on Cultural and Historic Antarctic Heritage Projects. Co-chair of the Informal discussion on Historic Sites and Monuments (ATS), and the HSM's Enhancement Projects on Antarctic fieldworks campaigns.*

## Ria Olivier

Antarctic Legacy of South Africa

### Understanding the Antarctic region through digitised history

The Antarctic Legacy of South Africa's main aim is to preserve the history of South Africa's involvement in the Antarctic region. The Legacy accomplishes this aim with the digitising of collected material. This material includes photographs, artefacts, diaries and letters of a personal nature, but also official documents and maps. This material scratches the depths and surfaces of the Antarctic over many disciplines. The aim of the repository is to preserve this legacy, but also to promote it to South Africans of all ages, gender and race. Through involvement with the polar museum network it was realised that there are many Antarctic artefacts throughout South Africa. The digital archive provides access to these fulfilling an obligation to create science awareness when limited resources mean that a physical museum is not a possibility in the near future. This presentation will give an insight into the process of creating a museum with digital material from the heroic area until present time, giving a demonstration of the prototype digital museum.

*Ria Olivier is co-investigator, archivist and manager of the Antarctic Legacy of South Africa (ALSA). Her academic and working career began in Information science with specific focus information in the digital era. She specialised in the management of information and this brought her to the Antarctic environment as data technician in 2012. This led to her involvement in SANAP and SCAR. She is a*

*member of HASSEG as well as representative of South Africa in SCADM and these two areas accumulate in the success of ALSA. She is also a founder's member of the Polar Museum Network.*

## **Jessica O'Reilly**

Indiana University

### Institutional and Epistemic Cultures in the Time of Alternative Facts

How do people and facts within knowledge regimes and science-based government agencies navigate a political climate which has been described as “post-truth” or “post-fact”? To answer this, this presentation will compare two institutional bodies: 1) the Intergovernmental Panel on Climate Change (IPCC), which assesses scientific research to create policy-relevant reports for delivery to governments and the United Nations Framework Convention on Climate Change (UNFCCC), and 2) the Antarctic Treaty Consultative Meetings, which claims to prioritize scientific data in decision making—decisions that often circulate around enabling scientific research in Antarctica. Though the IPCC and ATCM have contrasting institutional and organizational missions, both are strongly oriented towards scientific knowledge production. Their comparison suggests that science is translated into policy through particular cultural means, especially in forms of governance and scientific communication. This talk will focus on moments in which the presupposed relationships between science and policy are dissolved, in contexts where ignorance is considered as virtuous as knowledge. The IPCC and UNFCCC have longstanding practices in which to work through and with climate denial. Conversely, practices in the Antarctic Treaty System—through its relative isolation in international geopolitics and through a post-Cold War system of idealized, rational decision making (which is a discursive institutional value not consistently upheld in practice)—tend to reify expertise and exclude ignorance in policy practices. These institutional practices suggest tactics for promoting resilience and resistance in the face of attempts to discredit and de-centre expertise from decision-making.

*Jessica O'Reilly, assistant professor of International Studies at Indiana University, is an environmental anthropologist who studies how scientists and policy makers participate in environmental management, both in regards to the Antarctic environment and global climate change. She is the author of *The Technocratic Antarctic: an ethnography of scientific expertise and environmental governance* (2017, Cornell University Press) and a co-author of the forthcoming volume *Assessing Assessments: A Historical and Philosophical Study of Scientific Assessments for Environmental Policy in the Late Twentieth Century* (University of Chicago Press).*

## **Diana Mary Patterson, Janette Graetz Simmonds, Tristan Leslie Snell**

Monash University

### Looking for Joe: Adopting an animal–human perspective in Antarctic historiography

Non-human animals have long been under represented in historical narratives, and the sledge dogs of Antarctica are no exception. While Joe, a small Siberian dog, has been immortalized in bronze on Hobart's waterfront he is there as a supporting actor in the tribute to locally raised and educated pioneering explorer, Louis Bernacchi. The first Australian to overwinter in Antarctica, Bernacchi was one of the ten-man land based party of Carsten Borchgrevink's Southern Cross Expedition 1899-1900. Joe was one of the 90 sledge dogs on board the expedition ship when it sailed from London. The quest to learn more about Joe, and the nature of the social interactions between sledge dogs and explorers in this first land-based exploration in Antarctica, provides new insights into the social dynamics of this largely overlooked expedition.

*Diana Patterson OAM is a late career PHD candidate at Monash University, Melbourne. Her research interest is the nature of the relationship between the early Antarctic explorers and their sledge dogs. Diana has twice overwintered in Antarctica, led a conservation team at Mawson's Historic Huts and spent a decade working on a tourist ship in the Ross Sea, guiding, lecturing and providing interpretation in the historic huts. Her book, *The Ice, Beneath My Feet*, was published in 2010.*

## **Michael Pearson**

### **Under the boats: a strategy for sealing in the nineteenth century**

Sealing in the southern oceans around Antarctica in the nineteenth century by British and American ships required particular strategies to deal with the dangerous conditions of the shores being exploited. Sealing expeditions commonly consisted of a 'mother' ship, a small tender (called a 'shallop'), and a number of whale boats to carry sealing gangs ashore. Where extensive beaches were accessible and seals were abundant, makeshift shelters were established in caves or built using local stone and whale bones against protective cliffs. Many of these camp sites have been identified and studied archaeologically. Building shelters, however, was a time-consuming exercise, and on small beaches that were commonly separated by glaciers or impassable cliffs, only a day or two of work would clear them of seals. Then the crew had to row on to the next beach seeking seals. It was inefficient to build shelters, so camping under the upturned boats was a convenient alternative strategy. The paper looks at this strategy through the historical sources, and hypothesizes what the archaeological footprint of boat-camps might look like, to guide ongoing survey work.

*Dr Michael Pearson AO has been involved in archaeological survey and excavations of sealing camps in the South Shetlands with Chilean and Brazilian teams on six expeditions since 2003. He has worked in the archaeological and heritage planning and conservation field in Australia and overseas for 40 years, both in government agencies and as a consultant.*

## **Will Lucas Silva Pena**

Federal University of Minas Gerais

### **Troubling Gender at the Polar Circle: a Study of the Brazilian Antarctic Research Program**

This presentation is the result of questionings brought by an ethnographic work carried out at the Brazilian Antarctic Station (King George Island, South Shetlands) in the summer of 2015/2016 and it is linked to the Laboratory of Antarctic Studies in Human Sciences (LEACH-UFMG) and to the 'Gender, Body and Science in Antarctica: a study of the Brazilian Antarctic Research Program' project, funded by the National Council for Scientific and Technological Development (CNPQ). We intend to focus on the intersection between gender, science and Antarctica from two gender perspectives. Firstly, understanding gender in its metonymic aspect, i.e. as relative to men and women, we will approach the theme of the female corpus insertion among Brazilian Antarctic researchers. Both science and Antarctica carry the stigmas of an historical construction based on androcentrism, which motivates an investigation of the opening process of these two spaces to members of the 'second sex'. Secondly, understanding gender in its metaphorical aspect, i.e. as a source of symbolic structuration of the world, we will evaluate the ruptures or continuities resulting from the entry of female scientists in the regards of the scientific worldview and of the Antarctic lands imaginary construction. The reflections and interpretations herein are limited to the Brazilian case study, having the ethnographic work as its primary source.

*Will Lucas Silva Pena has a bachelor's degree in Social Sciences and a master's degree in Anthropology, both earned after studying at Federal University of Minas Gerais.*

## **Carolyn Philpott**

University of Tasmania

### Listening At the Sea Ice Edge: Compositions based on soundscape recordings made in Antarctica

Since the dawn of the 'Heroic Age of Antarctic Exploration' in the late nineteenth century, hundreds of composers have drawn creative inspiration from the southernmost continent for their musical and sonic art works. However, it has only been since the mid-1990s that composers have actually travelled to the far south (mostly as part of arts residency programs) to experience its environment – and unique soundscapes – firsthand. Most composers who have visited Antarctica have employed sound recording technologies to document their journeys sonically and have subsequently created compositions based on their soundscape recordings. Typically, these compositions include biological sounds, such as vocalisations of penguins and seals (recorded both on the ice and underwater); 'geophysical' ambient sounds that emanate from the natural landscape, such as those created by wind, blizzards and ice cracking and calving; and/or anthropogenic (human) sounds recorded within the Antarctic environment. These works are important not only because they contribute to enhancing public awareness of Antarctica, but also because they prompt us to engage with this remote place in new, and often powerfully affecting, ways. This paper examines a selection of compositions by established composers who have visited Antarctica and used their experiences and field recordings to inform their creative work, including United States-based composer Douglas Quin and Australian sound artist Philip Samartzis. Focusing on compositions that incorporate sounds from underwater, as well as from above the ice, the paper seeks to shed light on what these works can tell us about a place that most people are unlikely to ever see or hear in person.

*Dr Carolyn Philpott is the Research Coordinator and a Lecturer in Musicology at the University of Tasmania's Conservatorium of Music, as well as an Adjunct Researcher at the Institute for Marine and Antarctic Studies. Her research focuses on intersections between music, place and the environment and she has published articles in leading journals within the fields of musicology and polar studies, including Musicology Australia, Organised Sound, Popular Music, The Polar Journal and Polar Record. She has also contributed to articles published in the esteemed international encyclopaedias New Grove Online (Oxford Music Online) and Die Musik in Geschichte und Gegenwart.*

## **Elsbeth Probyn**

University of Sydney

### When Fish is Meat: The Transnational Entanglement of Antarctic Toothfish

"As they went farther and deeper, fishermen have brought back fish that people didn't have recipes – or even words – for" (Fatherthold, 2009).

In the summer of 2016 on a fieldtrip in Nelson, the hub of New Zealand deep-sea commercial fishing, I asked a resources manager from Sealord about the popularity and astonishing expense of toothfish. This nearly blue-white deep-sea fish is caught in Australian and New Zealand seas around Antarctica, and it sells for about the same price as a piece of wagyu filet. The manager reflected briefly, and replied: "well it's about those American chefs. You see toothfish doesn't look like a fish, doesn't smell like a fish, doesn't taste like a fish – so it's perfect for American appetites". In this paper I explore the concatenation of forces that rendered toothfish (*Dissostichus eleginoides* and *Dissostichus mawsoni*)

one of the most expensive fish in the sea, and along the way drove the species to near extinction. Renaming the toothfish as “Chilean Sea Bass” in the northern hemisphere, combined with overfishing in the northern hemisphere, greed and the technology to down deep in the deep south of Antarctic waters created a perfect storm. The tale of the toothfish encapsulates the global and the trans-national, global north and south, in an epic and bewildering fashion. Its analysis may tell us something about the weird entanglements of taste, the unequal relations between North and South, and the precarious future of the fish and environment in Antarctica.

*Elspeth Probyn (Fellow of the Australian Academy of Humanities, and Fellow of the Academy of Social Sciences in Australia) is Professor of Gender & Cultural Studies at the University of Sydney. She is the author of several six monographs, and has published well over 150 articles and chapters across the fields of gender, media, and cultural studies, sociology, philosophy, cultural geography, anthropology and critical psychology. Her current research, “Sustainable Fish: a material analysis of cultures of consumption & production” (funded by an Australian Research Council Discovery Project) analyses the sustainability of the production and consumption of fish, or ‘more-than-human’ sustainable fish communities, the results of which are published in a new book, Eating the Ocean (Duke University Press, 2016).*

## **Ursula Rack**

University of Canterbury

### Geographical societies, mapping and interests in the Antarctic

Maps have been available in all forms and sizes since humans started to explore their world. From the late eighteenth century, for political, economic and military reasons, accurate maps became in strong demand. Such improved accuracy was possible with better developed navigational instruments. At that same time, the subject of Geography developed itself as an independent academic discipline. In parallel, geographical societies evolved and became quickly quite powerful in the nineteenth century, becoming a driving force for scientific research in a variety of new emerging disciplines. Proceedings of geographical meetings and conferences from that time give us an insight in the growing interests such societies had in the Antarctic. Motivation varied, sometimes deeper knowledge of the earth system predominated actions, while at other times concerns of territorial and economic nature were the predominate driver for action. This paper examines the evolution of geography as an independent discipline and how geographical societies reflected their nations’ interests that were commonly depicted as colonialism and imperialism. The paper also examines, what was at that time, a growing desire for scientific knowledge through international collaboration that was promoted by geographical societies. In questioning the different interests in the Antarctic from the mid-nineteenth century onwards, the presentation provides deeper understanding of the various motives behind interests in the Antarctic such as science, economy, and politics.

*Ursula works as researcher and lecturer at Gateway Antarctica, UC. She received a COMNAP Fellowship for the research project “Reconstructing historic Antarctic climate data from logbooks and diaries of the Heroic era”. Subsequently she works for the National Science Challenge–Deep South searching and assessing ship logbooks for their weather data over the past 200 years.*

## Annalise Rees, Jaimie Cleeland

University of Tasmania

### Geolocation Journeys: a Science+Arts collaboration supporting marine predator research

Geolocation Journeys is an innovative collaboration between marine predator scientists at the Institute for Marine and Antarctic Studies and visual artist Annalise Rees, helping to increase public awareness and support Antarctic marine predator research. This presentation will discuss the cross-disciplinary collaboration and how the project is creatively promoting research by engaging public support. Geolocators are tracking devices used on Southern Ocean top predators, from delicate shearwaters to imposing elephant seals. Geolocators record ambient light levels, water temperature and time enabling scientists to uncover the foraging movements of predators to identify regions that are of high ecological significance. By gaining an understanding of how marine predators use their ocean habitats, and in particular how these regions are affected by human activities such as industrial fishing and climate change, more effective management strategies can be put in place for their protection. Geolocation Journeys brings together scientists and artists to create unique wearable artworks using 'retired' geolocators, to raise awareness of the extreme migrations these species embark on and the changing climate they are currently experiencing. By sharing artworks with the non-scientific community through public talks, school workshops and open days these tactile objects metaphorically transport people into the Southern Ocean, with a view from the perspective of a seabird or seal. These tiny pieces stimulate and aid critical dialogue about Antarctica and the rapid changes it is experiencing. This project appeals to a broad, curious audience and captivates those ecologically minded by bridging the fields of art, ecology, physics, astronomy, engineering and mathematics.

*Dr Annalise Rees is a visual artist whose research is drawing based and informed by historical practices of exploration, navigation and cartography. She exhibits nationally and has undertaken residencies across Australia and in the United Arab Emirates, India, Canada and Japan. She has worked with the International Cartographic Association and was official voyage artist on a two-month scientific voyage to the sub-Antarctic aboard the RV Investigator. With a particular focus on the maritime environment, Annalise's work investigates how physical and metaphorical manifestations of the unknown drive searching and enquiry for artist, scientist and explorer alike.*

*Jaimie Cleeland is a PhD student at the Institute for Marine and Antarctic Studies at the University of Tasmania. After spending just under two years counting seabirds and hunting for rabbits on sub-Antarctic Macquarie Island, Jaimie Cleeland joined IMAS as a PhD Candidate. Her research focuses on the effects of climate change, fisheries and habitat degradation on the four albatross species that breed on the tiny island Jaimie called home. She has found that the survival of these populations is negatively affected by fishing in the southwest Atlantic and large-scale climate cycles in the south Pacific. Most surprisingly Jaimie has found invasive rabbits and heavy grazing of nesting sites plays a considerable role in regulating albatross breeding.*

## Karen Rees

Tasmanian Polar Network

### Hobart's Role in Antarctic Affairs

Hobart, Tasmania has played a vital role as an international Antarctic gateway city since 1831, when the first sealer re-provisioned in Hobart during his circumnavigation of Antarctica. Many of the expeditions of the heroic era of Antarctic exploration began or ended in Hobart, and the local community has long been fond of its link with the icy continent. Today, Hobart offers all the conveniences of a modern and thriving Antarctic gateway. Its focus is on modern infrastructure with

continuous improvements to the Hobart port and airport to better connect contemporary expeditions going south. Hobart took off as a modern Antarctic Gateway when both CCAMLR and the Australian Antarctic Division were moved to Tasmania in the early 1980s. This paper explores the attributes of Hobart as a gateway, and looks towards its further development in the future. It links the historic context to a sense of connection and ownership of the Antarctic sector by the people of Hobart, discusses the international engagement and collaboration that is at the heart of the gateway's activities, and explores its role as an international science hub. It also describes the unique role played by the Tasmanian Polar Network over its 23 year history - a story of people, community and commitment.

*Karen is the Chair of the Tasmanian Polar Network, a 70 member strong incorporated industry association. Members represent the Antarctic and Southern Ocean sector and cover private enterprises, education institutions, research organisations and Government departments. As a former tour operator she was also a board director of the Tourism Industry Council of Tasmania and the Tasmanian Travel & Information Centre. More recently she has been working with cruise tourism, Antarctic logistics, shipping and aviation – currently at Hobart Airport. In her spare time Karen is a Civil Marriage Celebrant, dances Argentine tango, bush walks and has driven a tractor across the Antarctic ice cap.*

### **Susan Reid**

University of Sydney

#### Propagules, Pumps and Briny Relations

The ocean body and its dynamic systems can take us beneath ethics to myriad enactments and offerings of relationality. As the effects of climate change gather force, it is especially timely to explore the scientific and juridical imaginaries that enable the Southern Ocean to be terraformed and consumed. How might a relational connection with the living ocean be developed? This paper washes against such a question, at least partially, through an imagination of relation that dwells with the concept of a living ocean -the very physical, moving elements of a sticky, briny entity that assembles a personhood more vivid and lively than any corporation. Through a series of conceptual eddies that defract across oceanographic text, new materialism, and legal philosophy, the paper thinks with the ontologically fascinating Southern Ocean dynamics that represent motion and a materiality, both past and present. It entails promiscuously thinking with flagellates and propagules, and their generative collective movements, as much as with the Antarctic Circumpolar Current that winds and pump its way around the earth. The paper draws on new materialist and eco feminist notions of care to open generative ways of thinking through issues such as ocean resource use and climate change; and to draw out potential approaches to an ocean ethics or relational dispositions of care.

*Susan Reid is an arts developer, curator, and lawyer. She is a doctoral research student at the University of Sydney with interests in eco-relationalities, ocean imaginaries, juridical imaginaries legal philosophy and eco-feminist philosophies.*

### **Leslie Carol Roberts**

California College of the Arts

#### The Great White Stage: How World Park Antarctic Emerged from a performance of exploration and protest

In 1985, high-level governmental conversations around Antarctica centred on resource exploitation. The environmental group Greenpeace decided to shift the rhetorical emphasis from “how might we

exploit” to “how might we preserve” and thus a global movement to create World Park Antarctica was born. Greenpeace, the brainchild of a journalist, who referred to startling images of both exquisite beauty and horrific habitat destruction as “mind bombs,” excelled at using image and word to shape public opinion and shift private and public debate. The arguments around World Park Antarctica and the notion of a “commons” owned by none, therefore owned by all, were unfamiliar to many at the time. Greenpeace therefore had a multi-faceted communications approach, which equally engaged Antarctic Treaty members as peers and legal experts and the public, through the use of performance in the form of penguin costumes and signs at protests. The largest performance piece was the recreation of Antarctic expeditions via the acquisition of a ship and technology to build a “base” near the famed hut of Robert Falcon Scott. This talk will introduce an overview of the Greenpeace expeditions of the mid-1980s and include slides of the expedition and its crews before, during and after the voyages. Performative protest in the Antarctic and its success on the global stage has broad implications at a time when our planet is under threat and large, controversial projects such as the Dakota Access Pipeline, grip the attention of many Americans.

*Prof Leslie Carol Roberts, MA (Canterbury), MFA, (Iowa), is the author of *The Entire Earth and Sky: Views on Antarctica* (Nebraska 2012, 2008). A Fulbright Fellow, she has written about Antarctica for magazines and newspapers and has given talks on the topic at universities in the U.S., Australia, the UK, and New Zealand. Prof Roberts lives in San Francisco where she is a Dean and faculty member at California College of the Arts. Her latest Antarctic “making project” is 3D prints of tiny Antarcticas; their use is not entirely clear but she intends to find one.*

## **Lisa Roberts, William Gladstone**

University of Technology Sydney

### Oceanic Bliss: From isolated heroes to interdisciplinary relationships

It is well known that expeditions to the Poles generate data that are vital for scientific understanding of the complex processes involved in climate change, and that scientific expeditions host artists whose works enjoy public appeal. Less well known is that many scientists are also artists, and that although in times past their work as artists has added depths of meaning to their data, today these expressions are mostly hidden from public view; subjective expressions have no place in the scientific literature where language strives to be as unambiguous as possible. We will present an overview of current art-science collaborations and identify a trend away from artists visualising data with little input from scientists, towards deeper and more sustained interactions between scientists who are also artists, and the artists who work with them. We will explain this observation from our perspective as collaborators within a global movement away from the isolated Heroic effort towards collective, relational, interdisciplinary approaches.

*Dr Lisa Roberts is a visual artist and interactive author with expertise in animating scientific data and human gestures. Since childhood she has danced and drawn the primal forms she knows from living with ancient forests in Australia, from practising German Expressionist dance, and from working with scientists in Antarctica. Lisa is Leader of the Living Data program and a Visiting Fellow, University of Technology Sydney (Life Sciences). <http://www.lisaroberts.com.au/content/bio/bio.php>*

*Professor William Gladstone is a marine biologist and photographer with a lifelong fascination with marine life. He contributes to management and conservation of marine biodiversity, to understanding the different and similar ways artists and scientists respond to the same environment and the ways we can each depict and describe these experiences. William is Head of School of Life Sciences, University of Technology Sydney. <http://www.uts.edu.au/staff/william.gladstone>*

## **Gabriela Roldan**

University of Canterbury

### 'Into the Deep': the many layers of Nationalism in Antarctica

The worldwide rise of nationalism, particularly in the last two decades, has seen this political ideology become a synonym for violence, populism, and religious and ethnic discrimination. However, the principles of nationalism are more intertwined with the concept of nation and its peoples' national identity rather than with hatred and mass murder. The isolation and harsh environment of Antarctica does not insulate it from global politics; nationalism also exists in contemporary Antarctica. Appealing to nationals' sense of nationhood, Antarctic nations employ and display numerous expressions of political, cultural and territorial nationalism to satisfy their state's political interests. Nationalism in Antarctica is not confined to the boundaries of the region managed under the Antarctic Treaty System. Instead, nationalism is reproduced and consumed by nationals of Antarctic States in everyday practices such as through political discourse, in the media, in education programmes, through heritage and arts, etc. The depth and influence of nationalism in the popular representations of Antarctica are varied, from the stereotypical and 'banal' nationalistic approach to a territorial claim to the subtle message of stewardship and protectionism. This paper will discuss how Nationalism occurs in modern Antarctic politics, and how these nationalistic expressions are conveyed by different Antarctic-nations.

*Gabriela Roldan is a PhD candidate, Gateway Antarctica, University of Canterbury (NZ). Gabriela's research interests range from Antarctic geopolitics, political sociology, polar policy and management, Antarctic tourism, and Antarctic education and outreach. Gabriela has visited Antarctica over 50 times.*

## **Maria Ximena Senatore**

University of Buenos Aires

### Understanding the heritage making process in the frame of Antarctic Treaty System

Heritage making in Antarctica is a complex process that involves multiple levels and contexts. As an international arena devoted to science and peace, the Antarctic Treaty System, based on international agreements, offers the main context in which heritage making occurs. Social sciences and humanities could play an active role in the process of heritage making denaturalizing the ideas about heritage, and contributing multicultural perspectives for further debates. Antarctica seems so far to be unaffected by the theoretical debates about heritage. The meaning of Heritage has been part of a broader debate in anthropology, history, archaeology, material culture studies, museum studies, and tourism studies. Definitions of heritage have been changing from essentialist to constructivist perspectives. Some views consider that heritage sites are defined as things that have intrinsic values. Others consider that values are not inherent but culturally ascribed in a specific context and time, and could change and might be revised along time. Moreover, some perspectives are moving the emphasis on heritage definition from what heritage is, to what heritage does. There are other perspectives that do not use the concept of values for defining Heritage. From these points of view Heritage is defined as actions, for example in the production of identity and community. The aim of this paper is to understand the relations between the discursive construction of heritage in the frame of Antarctic Treaty Consultative Meetings (ATCMs) and the development of research, conservation, and management of past material remains in Antarctica. The discursive construction of heritage was studied through the documents of the ATCMs from 1961 to 2016 available at the ATS web site. Working papers and Information papers were studied evaluating the ideas and debates about heritage as well as the measures and regulations approved by the Treaty parties. Research,

conservation, and management practices involving past material remains were analysed through bibliographical review of the academic production published from 1960 to the present. These analyses contributed to understanding the definitions of heritage in use at the international agreements achieved so far, as well as the connections between these definitions and the actions taken by different parties in Antarctica in the form of research projects and management plans.

*Maria Ximena Senatore is a National Researcher at CONICET (National Council of Scientific and Technological Research), Argentina. Professor on Historical Archaeology and Heritage at the University of Buenos Aires and at the National University of Patagonia Austral. She has a degree in Archaeology (University of Buenos Aires, 1995) and PhD in History (2003, University of Valladolid, Spain). Maria Ximena is a SCAR-HAASEG member and has been running research projects on Archaeology, History and Cultural Heritage in Antarctica since 1996.*

## **Akiho Shibata**

Kobe University

After “The Lawyer in the Antarctic”: A few pointers for potential collaboration between scientists and lawyers in Antarctic research

At the 2016 SCAR Open Science Conference in Kuala Lumpur, Malaysia, I have ended my presentation on “An International Lawyer in JARE: The role of social sciences in Antarctic field research” with a note indicating the future challenge to seriously examine the potential for substantive interface and integration between humanities/social sciences and natural sciences in Antarctic research. As a full-fledged exercise to tackle this challenge would involve a major academic endeavour, my paper tries to identify a few pointers for such future exercise, based on my experience as an international lawyer of being physically “confined” to one of the most exclusive scientist-only communities on Earth, the Japanese Antarctic Research Expedition (JARE).

Those pointers will address, for example:

- Evaluation of 60 years of science in Antarctica, and the prospects for next 60 years: the changing “value” of Antarctica as an area for the conduct of natural scientific research
- Increasing prominence of non-scientific values (cf., wilderness and aesthetic) and resource-oriented interests (cf., biological prospecting) in Antarctica
- General lack of interest among Antarctic (as compared to Arctic?) scientists and scientific communities (in Japan?) in politics and legal settings surrounding their scientific activities
- Increasing emphasis, particularly among the funding agencies, on the “policy relevant science”
- Recognition of another “field” of Antarctic science: ATCM and the reality of science diplomacy
- Collaboration: Start from specific disciplines with truly interested researchers.

*Akiho Shibata, Professor of International Law and Director, Polar Cooperation Research Centre (PCRC), Kobe University, Japan. Over the last 20 years, he has been examining and writing on the Antarctic Treaty System, and his most recent work is: “Japan and 100 Years of Antarctic Legal Order” (Yearbook of Polar Law, Vol. 7 (2015)). For the first time in its 60 years of history, Japan Antarctic Research Expedition (JARE) included him as its first social scientist during its 2017 summer expedition. His research has recently expanded to Arctic international legal studies, examining, for example, the Agreement on Enhancing Arctic International Scientific Cooperation (adopted in May 2017).*

## Emma Shortis

University of Melbourne

### The Emotions of Popular Environmentalism: Fear, Empathy and Hope in the Campaign for a World Park Antarctica

In 1988, after six painstaking years of negotiations, it seemed certain that the parties to the Antarctic Treaty would allow mining to begin on the continent. But by 1991, a concerted international campaign led by the French celebrity Jacques Cousteau and international environmental organisations had persuaded the parties to the Antarctic Treaty to agree to ban mining indefinitely and commit to the comprehensive protection of the entire continent. This paper offers a first look at the role of emotions in the World Park Antarctica campaign, offering a case study of how emotions can be deployed as an analytical category in environmental history more generally. In their campaign to protect Antarctica from mining, activists successfully positioned the continent into the broader 'structures of feeling' of contemporary environmentalism. Through appeals to fear, empathy and hope, the World Park campaign helped to propel the Antarctic into a new position as a symbol of humanity's role in global environmental destruction, and our hope for the future. The profound emotional resonance of the campaign is crucial to understanding the adoption of international legal protection for what Jacques Cousteau once called 'the last remaining unspoiled world.'

*Emma Shortis is a second year PhD Candidate in the School of Historical and Philosophical Studies at the University of Melbourne, researching the campaign to protect the Antarctic continent from mining in the 1980s and 1990s.*

## Fernanda Codevilla Soares, Will Lucas Silva Pena, Clarice Linhales

Federal University of Minas Gerais

### Breaking the ice: A proposal of mediation between archaeologists and non-archaeologists for an Antarctic experience

The 'White Landscape: Antarctic Archeology and Anthropology' project seeks to understand the human colonization strategies of Antarctica over time. In the 20 years of development of the research, we have tried to insert new actors in the discourses produced, evidencing the daily life of seal hunters and whalers who have traveled to the south seas in the late eighteenth and early nineteenth centuries. In this presentation, we will approach a new way of interaction with Antarctica we have been working on. Our goal is to involve the general public with the last continent in a way they can also become agents of this experience. The activity comprises the assembly of a dome (an acclimated inflatable capsule) in which the visitor can immerse in an Antarctic encounter by feeling the cold, the sound, the brightness and being able to handle some replicas of archaeological objects related to the history of Antarctica. The dome stimulates an Antarctic synesthetic experience by simulating the continent's features. Emphasizing the public's own involvement, we believe the perception of Antarctica past, present and future will emerge multiple, divergent and dissonant. Our proposal is precisely to encourage these different understandings and to value the bodily experience as a mediation between archaeologists and non-archaeologists.

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## **Rupert Summerson**

The University of Melbourne

### Wilderness and aesthetic values in the Antarctic sea ice zone

The Madrid Protocol mandates the protection of wilderness and aesthetic values in Antarctica. The Madrid Protocol is a protocol to the Antarctic Treaty, so the provisions of the former apply to the area of application of the Treaty, which is “the area south of 60° South Latitude”. Between the 60° South line of latitude and the Antarctic continent lies the sea-ice zone, in which sea ice forms during the winter and decays and mostly melts during the summer. At its peak the area covered by sea-ice covers is roughly the same area as the Antarctic continent (14 M km<sup>2</sup>) thereby effectively doubling the size of Antarctica. The sea ice zone is critical for the maintenance of the Antarctic and the Earth’s climate and many of the marine ecosystem processes that the Southern Ocean trophic system is dependent on. It has also been frequently remarked upon as an area of surpassing beauty with many unusual features such as “ice blink”, the many types of sea ice such as frazil ice and pancake ice and the abundant wildlife. Edward Wilson, for example, wrote “The sunlight at midnight in the pack is perfectly wonderful”. In this paper I will examine the values inherent in the sea ice zone, the actual and potential threats to these values and what protection may be necessary and can be afforded to a transient, mobile feature that is non-existent for three months of the year.

*Rupert Summerson first went to Antarctica in 1980 as a field assistant with the British Antarctic Survey. He has subsequently visited Antarctica 10 times with three national Antarctic programs and most recently on a tourist ship. He has spent three and a half years living in Antarctica, including three winters. In 2013 he finished his PhD on *The Protection of Wilderness and Aesthetic Values in Antarctica* at the University of Melbourne and has published a number of papers and book chapters on the subject.*

## **Richard Vokes**

University of Adelaide

### Constructing Kinship in Antarctica: Geneologies and Practices of Belonging on the Southern Continent

Anthropologists have long demonstrated how concepts of kinship are fundamental to all human societies. However, the way in which these concepts are expressed – and therefore the way in which they animate (and are animated by) actual social relations – varies from context to context. Early anthropological studies of kinship were particularly interested in how concepts of kinship become manifest as political-jural relations (i.e. as ‘familial ties’ of genealogy, descent and primogeniture). However, following the emergence of the ‘new kinship’, in the late-1960s, scholars instead focused upon how kinship may be expressed as a feature of social practice, especially in relation to practices of shared substance. This paper begins with the question: if kinship really is fundamental to all human societies, then is this the case even in the most remote, and ephemeral, societies on Earth: those that

live in and through Antarctica bases? Based on ethnographic fieldwork carried out in New Zealand's Scott Base, and in the USA's McMurdo Station, during the summer field season of 2016-17, this paper argues that not only are notions of kinship found here, but that these are indeed a fundamental aspect of social life. The paper traces how kinship is most commonly expressed here in terms of genealogy, especially in terms of present-day expeditioners being descended from earlier generations of Antarcticans. These claims are frequently sustained through relations with artefacts from previous expeditions on the continent. Yet so too, kinship in Antarctica is also constructed through everyday practices of 'home-making', which are themselves sustained through exchanges of shared substance.

*Richard Vokes is Senior Lecturer in Anthropology and Development Studies at the University of Adelaide, and an elected Research Associate of the Institute of Social and Cultural Anthropology at the University of Oxford. He holds a B.A. Hons. and an M.A. with Distinction in Social Anthropology from the University of Kent, and a D.Phil in Social Anthropology from the University of Oxford. His research focuses primarily on the African Great Lakes region, especially on the societies of South-western Uganda, where he has been conducting ethnographic fieldwork since 2000. He has published extensively on this region, including on: new religious movements, the HIV/AIDS epidemic, the history of photography, media and social change, and the anthropology of development (education, governance and infrastructure). He also works on African-Australians, eLearning, and the Anthropology of Antarctica. He has won numerous prizes and awards, including the Royal Anthropological Institute's Curl Essay Prize, a Finalist Award in the African Studies Association's Herskovits competition, and the Royal Anthropological Institute's Sutasoma Prize. He has held the Evans-Pritchard Lectureship and two Visiting Fellowships at All Souls College, Oxford. He has secured competitive research funding from: the Australian Research Council, the British Institute in East Africa, the British Library, the Economic and Social Research Council (UK), the Royal Society of New Zealand's Marsden Fund, and the Wenner-Gren Foundation (USA). He also conducts a wide range of consultancy and media work. He is President-Elect of the Australian Anthropological Society, Co-editor of the Journal of Eastern African Studies, and Chairman of the Governing Council of Rose Park Primary School. And he has four children.*

## **Pablo Wainschenker**

University of Canterbury

### *"The Mist of Terror": A Rare Antarctic Tale*

A young man goes to Southern Chile to work as an assistant to a group of engineers surveying a recently discovered mine. The team set up a tent on an island in the Beagle Channel and start their field work. One night, as the young assistant is making dinner for his colleagues, an old man appears and tells his story. This presentation analyses a short piece of Antarctic fiction written in 1932 by Liborio Justo, a little-known Argentine writer. The work is a fascinating sample of Antarctic South American literature in the 1930s and reveals unique conceptions of Antarctic geography. In the tale, the Antarctic is a region that contrasts with the current definition of the white continent. Unlike other early Spanish-language Antarctic fictional tales, which use Antarctica as a blank canvas, Justo's story could not have happened anywhere else in the world. Justo's story portrays a unique Antarctic environment and explores the relationship between humans and a distinctive Antarctic space.

*Pablo studied Social Communication at the University of Buenos Aires and gave his dissertation on Antarctic fiction. He is a PhD candidate at the University of Canterbury in New Zealand, working on representations of Antarctica in works of fiction from Argentina and Chile. For a number of years he worked as a science journalist for the Argentine national newspaper Página/12. In 2002 Pablo co-produced Trapped in the End of the World, a documentary film on Otto Nordenskjöld's Antarctic*

*expedition. Pablo has worked as the Editor at the Secretariat of the Antarctic Treaty since 2005 and onboard Antarctic cruises, where he lectures on Antarctic governance.*

### **John Williamson, Lorne Kriwoken**

Fahan School, University of Tasmania

#### Hobart, Antarctic Gateway or Port of Convenience: the Norwegian Expedition of 1911-1912

By 1912 Hobart was attuned to the sight and sound of Antarctic Expeditions. During the previous decade, the port of Hobart had accommodated the ships of various expeditions to the south: Bull, Borchgrevink, Mawson and others. So, when the Fram sailed up the Derwent in March 1912 it was exciting but not really a novelty. Until, that is, Hobart's citizens realised just what Amundsen had done and what he had come to Hobart to tell to the world. This expedition relied heavily on Hobart for an accurate and immediate communication to the outside world about Amundsen's success; for its part Hobart used the expedition to further develop its reputation as a port for Antarctic and Southern Ocean exploration and exploitation. We argue therefore that the Amundsen expedition had immediate and substantial effects on Hobart as an Antarctic Gateway city. However, although there was recognition that Hobart had played an important role in contributing to the success of the Norwegian expedition, there was not any significant development or utilization of Hobart's port facilities until after WWII. Hobart had been used as a 'Port of Convenience' rather than as a fully-fledged Antarctic Gateway. Today this is evident in the lack of any significant representation of the Amundsen expedition in Hobart. Hobart's polar gateway status was still a long way off.

*John Williamson teaches senior History and Philosophy at Fahan School in Hobart where he is the Head of Humanities. John is also a Polar Historian: he lectures in Antarctic History at the Institute for Marine and Antarctic Studies, University of Tasmania, and has worked as a guide/historian in Antarctica for Quark Expeditions. For the last two decades John has carried out Polar research for Hobart City Council and government institutions, and he and Dr Lorne Kriwoken have been instrumental in developing Hobart's "Polar Pathways" tours. His daughter thinks he looks a bit like Sir Douglas Mawson!*

*Dr Kriwoken is on the Editorial Board of Polar Record and the Antarctic & Southern Ocean Law and Policy Occasional Papers, University of Tasmania. He is the past chair of the Marine, Coast and Estuarine Committee of the Tasmanian State of the Environment Report, a member of the Tasmanian National Parks and Wildlife Advisory Council, a Member of the World Commission on Protected Areas (IUCN) and a member of the Environment Institute of Australia and New Zealand.*