ICESHEET
The British Antarctic Survey Internal Newsletter
Sep-Oct18
#98

The Art Of Science Communication

Director's Office

How do we explain important science to people who are turned off by numbers, graphs and data? Many people respond instead to the likes of stories, pictures and music – so how can we communicate better with people who have a more emotional response to the environment?

In BAS we are now collaborating with artists of many kinds to help us communicate to wider audiences with greater impact.

Artists are becoming proactively involved in specific science projects, learning about the science, getting to know the people and helping to communicate important ideas to new audiences.

In BAS we have several art-science collaborations. Space weather scientist Nigel Meredith is working with an artist-engineer, a dancer and a composer on the 'Sounds of Space', on radio emissions from Halley that have been converted to sound, which has inspired artistic performances that express the wonder of space *(see page 6)*. Wayne Binitie works with glaciologist Robert Mulvaney to bring to life the bubbles of gas trapped in old ice, producing beautiful graphics and films and carving blocks of glass that resemble ancient ice (there's one in BAS Cambridge reception).

Seabird ecologist Richard Phillips is working with clothing designer Andrea Zapp on windbreaker designs that tell the story of albatross conservation, and marine mammal ecologist Iain Staniland collaborates with sound artist Emma Critchley on raising awareness of marine acoustic pollution.

These activities can also unlock new funding: palaeoclimate modeller Louise Sime has just won an AHRC grant with Tom Corby, Professor of Interdisciplinary Art at CSM in London, on communicating climate change through physical objects.

If you would like an artist to work with you on your project then please contact Beatrix and she can help you find the right kind of artist for your project. It could help you see your science with fresh eyes and inspire you to tell your story in a new way.

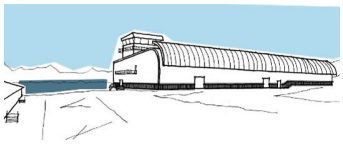
Professor Dame Jane Francis

Rothera Modernisation Update

BAS stations

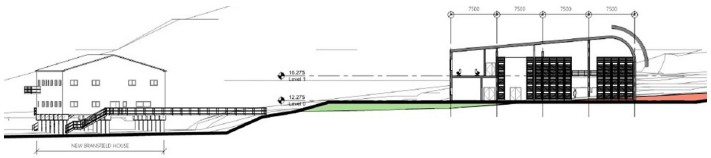
Rothera Modernisation Phase 1 has reached a key development with the completion of the final design brief. The report expands on the preferred options for the new scientific operations, vehicles and estates building and site-wide services identified through the assessment study.

The main areas of focus have been to incorporate BAS strategy within the architectural, mechanical and electrical (M&E) services of the new infrastructure. The architectural layouts have shared workspaces and a central store that will allow collaborative working, maximise station flexibility and enable efficient stock control and cargo handling.



▲ *Scientific Ops, Vehicles and Estates Building, with Comms Tower and snow deflector*

M&E strategies are energy efficient and simple to maintain. Waste heat created by the electricity generation process will be recovered and fed into a district heating network that will be distributed around the station. This will connect into New Bransfield House and Admirals House to provide heating to maximise the benefit of the heat recovery and potentially enable Rothera to reduce fuel consumption by 35-40%.



▲ *Proximity of the Scientific Ops building to New Bransfield House*

The Operations Building will be located 30m from New Bransfield House walkway and 24m from Admirals and thus accommodates the long-term vehicle and pedestrian access requirements. The orientation maximises the natural snow scour around the north, west and east facades and a wind deflector is designed to minimise snow accumulation on the southern facade.

The project design brief forms the basis for the works information and developed design report that will be handed to the constructor, BAM, for target cost design in December 2018.

– Dave Brand

Don't Get Hooked!

A successful day counting wandering albatross chicks on Prion Island (26 from 35 nests) was topped off when I was given a sample *Hookpod* by the captain of a fisheries patrol vessel. Albatrosses in South Georgia are well protected, but our beautiful birds travel to areas where they are at risk of being hooked on longlines. The innovative new *Hookpod* covers the tip of the hook until it's out of reach of diving birds. Let's hope this is embraced by the longline industry globally.
– *Vicki Foster*

▲ *An innovative Hookpod*

People, Plastics And Our Planet

▲ *Attendees at the venture school event at AURORA Cambridge*

In September we hosted an exciting venture school at AURORA. For four days, an interdisciplinary group of PhD students, post-docs, industry delegates and entrepreneurs from nine countries met to learn about the complexities of plastic pollution, and to investigate potential solutions.

Five teams developed ideas ranging from reducing clothing waste, 'over-gamefication' of recycling, to turning waste plastic into building blocks in developing countries. The teams pitched their ideas to a panel of judges from the Cambridge entrepreneurial landscape, and one team ('SeaSleeves', aiming to produce seaweed-based thermal food packaging for catering e.g. in airlines) was invited to pitch their idea to investors at Cleantech Venture Day 2018 in London on 31st October. Both the event and the pitch in London featured on BBC Look East.

This series of solution-focused events continues on 14th November with 'Sustainable Innovations in Performance Clothing'.
– *Beatrix Schlarb-Ridley*

Prof Lloyd Peck Research Fellow

Congratulations to BAS Science Leader Prof Lloyd Peck, who was recently elected a Research Fellow of Wolfson College, University of Cambridge. BAS scientists being Fellows of Wolfson College is quite appropriate because the college has Sir Vivian Fuchs house in its grounds (Fuchs was the first Director of BAS), along with his topiary penguin that is over 15 feet high!
– *Jamie Oliver*

▲ *Lloyd and a topiary penguin*

Ny-Ålesund Arctic Station

The NERC station in Ny-Ålesund, Svalbard, is operated and managed by BAS and is available for use by virtually any UK-based researchers in receipt of UK Research and Innovation funding or competitively-won grants. It is a fantastic facility and has a strong track record of supporting safe, successful and innovative research.

Earlier this year NERC committed to a ten-year funding programme and also to capital investment to update the laboratories. There will be a special event on Thursday 21st February in the AURORA Centre, organised by BAS and the NERC Arctic Office, to promote the station and highlight the opportunities to work there. Contact *arctic@bas.ac.uk* to reserve your place and receive further details.
– *Henry Burgess*

Summer In The Workshops

BAS vehicles

▲ *Plenty of action in the yard*

This summer the Cambridge garage has been busier than ever. It has seen everything from new ACE 900 ski-doos to 35-tonne wheeled loaders prepped and polished ready for their journey south.

A first for the team this year was the total refurbishment of CAB1, the traverse caboose originally deployed on the iSTAR project in 2011. With a totally new fit-out in the living area and the addition of a solar-power system, it should serve the traverse teams and maybe even visitors to Sky-Blu for many years to come.

The new Volvo L180 loader, destined for Rothera, has dwarfed the rest of the machines here in the yard this summer, but with its impressive dimensions comes impressive performance. Its 300hp engine and huge bucket should take on both container movements and snow clearing duties on station with ease.

The team have also modified 12 ski-doos for fieldwork, manufactured yet another snow melting tank, and fabricated a fuel pumping unit to help the traverse team with fuel transfers and aircraft refuelling.

So another busy and exciting Cambridge summer comes to an end. A big thanks to all involved with the work both here in the garage and elsewhere in the building.
– *Jonny Yates*

▲ *The new Volvo L180 loader is an impressive beast*

IUGG Award For Emilie Capron

▲ *Emilie Capron – winner!*

Congratulations to BAS Palaeoclimatologist Dr Emilie Capron who has been awarded the prestigious Early Career Scientist Award of the International Union of Geodesy and Geophysics (IUGG). The award is given to early career scientists for their outstanding research in Earth and space sciences and for their international research cooperation.

The presentation of the award will be made at a special awards ceremony on Saturday 13th July 2019, on occasion of the 27th IUGG General Assembly to be held in Montreal, Canada, from 8th to 18th July 2019.

Emilie has received the award for her collaborative work on the Last Interglacial, as part of many large and complex projects (P4F, iGlass) but most importantly as part of the QUIGS working group as well as her larger involvement in the PAGES scientific steering committee. Well done Emilie! Congratulations on a well-deserved accolade.
– *Louise Sime*

Inspiring Future Generations

October was a busy month for BAS STEM Ambassadors. The Cambridge Big Biology Day 2018 at Hills Road Sixth Form College on 13th October, with its emphasis on 'wow biology is brilliant', attracted over 2,000 visitors. Huw Griffiths, Claire Waluda and Beatrix Schlarb-Ridley chatted to families (with lots of enthusiastic children) about how animals and plants survive on the frozen continent and in the Southern Ocean, and human impacts, such as plastic pollution.

Alex Brearley and PhD student Ryan Scott were at the Norwich Science Festival – a showcase of cutting-edge research, innovation and exploration over nine days (19th-27th October) which had an estimated 10,000 visits. The festival kicked off with a day dedicated to celebrating our oceans, seas and rivers with family-friendly stands. The BAS stand had footage of the JCR breaking ice, an animation of the SDA, and a Slocum glider on display.
– *Kim Quince*

▲ *The BAS stand at the Cambridge Big Biology Day 2018*

Dash 7 Gets A New Paint Job

The photo shows the BAS Dash 7 aircraft returning to the hangar of our contracted maintenance provider at North Bay, Ontario, after a series of engine ground checks. The aircraft completed its annual maintenance visit before heading south for the current Antarctic season.

Most notable was a total exterior repaint in a premium 'high solid' polyurethane finish designed to give premium gloss and excellent durability in the high UV environment experienced in Antarctica.
– *Mark Thomas*

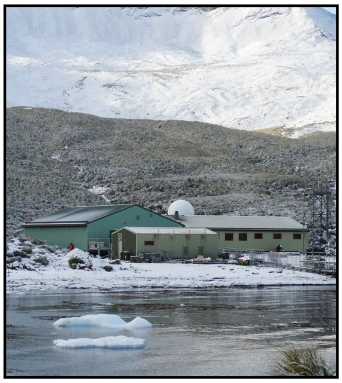
▲ *Looking shiny and new*

AIMP Islands – Station Updates

As the new Beck House on Bird Island approaches its six-month birthday, we are beginning to assess the benefits this new building will bring to Bird Island, which will focus on and around cargo works at the start of the 2018/19 summer season. First call will be the first major test for the new building, its biosecurity features, logistic upgrades and storage improvements. There are still some logistical challenges that remain for Beck House, but the finish line is in sight for this project, with the final stages of documentation being developed as this article is written.

With the Bird Island project nearing its end, design and planning for the new KEP wharf is moving along swiftly. The concept design has been approved and the team are now turning a concept into a more detailed design for Project Board review in February 2019. The wharf is the largest project for KEP since the hydro-electric dam in 2007/08 and will see much needed improvement in the logistics capabilities for the station, maintaining its position as the centre of science for South Georgia and the surrounding area.

Keep an eye on the AIMP screen in BAS Cambridge reception for further details over the coming months.
– *Joe Corner*



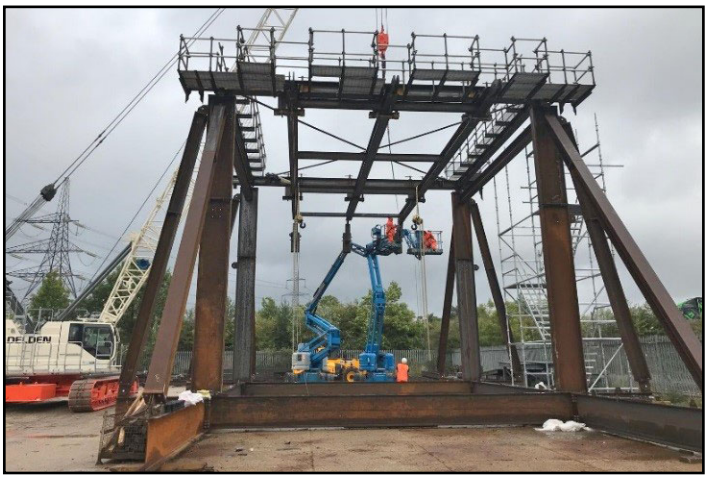
▲ *A wintery Bird Island*

UK-Canada Arctic Bursary

It has recently been confirmed by BEIS that they will fund a third year of the Bursary Programme. This scheme, operated by the NERC Arctic Office, provides Bursaries of up to £20,000 for UK-based researchers to join Canadian-led projects in the Arctic and High North of Canada. The Bursaries can support equipment, T&S, laboratory fees, but is not available for salaries or related costs.

This is an important and practical opportunity for researchers – especially early career researchers – to join high-profile projects and undertake significant fieldwork at much reduced costs. BAS researchers have been successful in the previous two rounds. Contact *arctic@bas.ac.uk* for further details or visit *www.arctic.ac.uk*
– *Henry Burgess*

Rothera Wharf Project Update



▲ *Erecting the trial framework for the new wharf before departure*

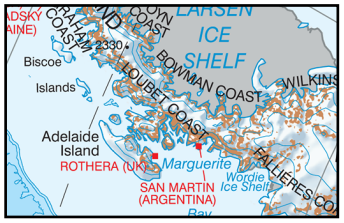
The detailed design and procurement phases of the Rothera wharf project have now been approved by the Board. The wharf construction management team are now based at Tees Port, where all the plant, equipment and materials are being assembled, ready for the arrival of the DS *Wisconsin* on 7th November.

The first of the BAM construction team arrived at Rothera on 13th November and most of the 50-strong team will be there in time for the *Wisconsin* arriving on station on 14th December. The personnel selection, induction programme and planning have gone very well and there has been some excellent joint work on the integration planning by Dave Wattam and Craig Nelson.

It will be a full-on season at Rothera as, by any measures, this is a major construction project. Anyone lucky enough to be at Rothera will have the opportunity to observe, from a safe distance, some cutting-edge construction delivery from our partner BAM Nuttall. It is also hoped that any down time for the construction team will allow the BAS science and station teams to share some of the great things that they do.
– *David Seaton*

▲ *DS Wisconsin (J. Braker)*

MAGIC Map Giveaway



▲ *Donations came from staff*

The BAS Mapping and Geographic Information Centre (MAGIC) raised an impressive £240 at the recent MAGIC Map Giveaway in October. The money was donated to MapAction, a charity that specialises in providing mapping for humanitarian emergencies.

I received a nice email from MapAction, who asked me to pass on their thanks to everyone involved. Thank you for your generous donations.
– *Laura Gerrish*

Antarctica Week Link Up

In the first week of December BAS will link up with schools from all over the UK to celebrate Antarctica Day. Almost 50 volunteers will help engage and inspire thousands of children by completing a 45-minute phone call each day between Monday 3rd and Friday 7th December. BAS staff in Antarctica, on the ships and in Cambridge will help bring Antarctica to life by describing what they do and why Antarctic research matters to a class full of school children.

This year we're teaming up with the US by focussing on the International Thwaites Glacier Collaboration. Our aim is to reach over 100 schools in total. Last year we did 42 schools at BAS alone. Find out more about the event at: *www.bas.ac.uk/event/antarctica-week-2018-for-uk-schools*
– *Athena Dinar*

BAS Golf Day – Fretwell Shines

The 2018 BAS Golf Day took place on a warm and sunny 4th October at Brampton Park Golf Club. The traditional format was upheld, with an 18-hole Stableford shoot-out for unfathomable glory and ownership of the coveted BAS Shield for the next 12 months. Competition was fierce on a tricky course, with the eight combatants high on bacon baps and coffee and raring to go on the first tee.

The perennial flair of Mike Dinn set an early pace with the ever-steady Steve Bremner not far behind. Rare off-days for last year's winner Andy Jeffries and record title-holder Teal Riley kept them out of the running. Some fantastic play from Joe Corner and William Mortimer threatened but it was the long-hitting and stylish Peter Fretwell who triumphed. The less said about Jamie Oliver's putting the better. Longest drive and closest to the pin honours were both scooped by Steve Bremner.

Congratulations to Peter and thanks for organising (and to Luke Bremner). Another fine day's golf enjoyed by all.
– *P. Mickelson*

▲ *Winner Peter Fretwell (right)*

▲ *A glorious day for golf*

Arctic Science Ministerial

BAS Director Jane Francis and Henry Burgess (NERC Arctic Office) were in Berlin at the end of October to support Prof John Loughhead (BEIS Chief Scientific Advisor) who was representing the UK at the Arctic Science Ministerial. This high-profile event saw over 30 Arctic and non-Arctic countries and six Indigenous Peoples' representative groups join together to improve the breadth, depth and impact of Arctic scientific observations.

The Ministerial – and Science Forum the day before – was an opportunity to show the UK's strong commitment to Arctic research, our technological strengths and future plans – including the new ship – as well as anticipated funding opportunities following the creation of UKRI. More info at: *www.arcticscienceministerial.org*
– *Henry Burgess*

Spotlight On Science – July 2018

A 120-year record of resilience to environmental change in brachiopods

Museum collections dating back to 1900 have revealed that brachiopods have coped with past environmental change over the last 120 years despite global trends of ocean warming and acidification since the industrial revolution.

In this study, we used a novel approach of utilising museum collections to better understand responses of vulnerable marine organisms to climate change. This allowed the assessment of how animals have already been affected by past environmental change. Current knowledge is based mainly on relatively short- to medium-term laboratory and field experiments. This cannot assess an organism's potential for long-term acclimation and adaptation, which are the processes identified as the most important for survival in their changing environments. Museum collections also provide a historical reference for future climate change responses. We assessed a unique specimen collection of a temperate brachiopod *(Calloria inconspicua)* collected every decade from 1990 to 2014 from one sampling site in New Zealand. Six key shell characteristics, including shape, thickness and dissolution, remained unchanged over the past century.

One positive response was the reinforcement of their shell by producing narrower shell perforations and laying down more shell. This provides new insights into how similar species might react and adapt to future change.
– *Emma Cross*

RRS SDA Science Equipment

▲ *The labs fit in ISO containers*

▲ *Small but perfectly formed*

Two brand-new containerised laboratories (Radionuclide and Ultraclean) are nearing completion. A recent factory visit to Merit Holdings in Cramlington, Northumberland, allowed BAS to see the progression of the labs.

The laboratory containers are standard 20ft ISO containers which will go onboard RRS *Sir David Attenborough* (SDA) to support science. The Ultraclean container has been specifically designed to support the trace metal scientific community. The Radionuclide container will allow scientists to use radioisotopes in a containerised laboratory setting rather than in the internal fabric of the SDA.
– *Andy Barker*

▲ *RRS Sir David Attenborough*

Nat Geographic Showing At BAS

On 4th October a new series of short films about the wildlife on and around South Georgia called 'Resurrection Island' launched on the National Geographic website. Last season we hosted a team from Nat Geo, led by filmmaker and presenter Bertie Gregory, at Bird Island and KEP as part of the BAS Media Visits Programme. Watch these beautiful short films here: *www.nationalgeographic.com/animals/wild-life*

For Cambridge staff, Bertie has agreed to give a talk to BAS staff on Monday 26th November (1.00pm) in the conference theatre where he'll talk about his filming at Bird Island and KEP, what it's like to be a wildlife filmmaker. He'll also show us some of his amazing wildlife footage that didn't make the series.
– *Athena Dinar*

MAGIC Image Of The Month

MAGIC Image #79

Over the last two Antarctic summers MAGIC has been working with the United Kingdom Antarctic Heritage Trust (UKAHT) to produce a series of highly-detailed, spatially-referenced 3D models of the historic Antarctic stations using terrestrial photogrammetry – accurate measurements from photos using a tripod-mounted camera and supporting ground survey. The models, which can contain hundreds of millions of points, allow UKAHT to take highly accurate measurements of the structures in the UK, to inform their ongoing conservation programme.

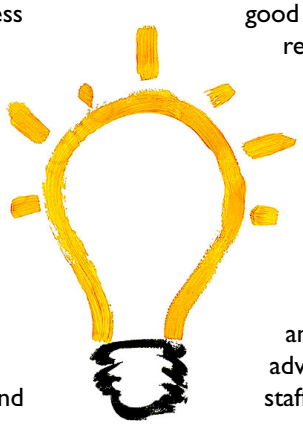
In 2018, MAGIC was deployed as part of the conservation team to Stonington Island in Marguerite Bay, the site of both the British Base E and East Base, the original American research station in Antarctica. Originally constructed in 1939, East Base has deteriorated in recent years due to the weather and high wind speeds Stonington experiences. The images shown here are screenshots of the final outputs for East Base of which only three structures remain standing: Ronne Hut, the bunk house and the science laboratory. Work on Base E is ongoing.
– *Nathan Fenney*

▲ *The remaining structures at East Base on Stonington Island*

BAS Ideas Day In December

The very first BAS Ideas Day (BID) will take place on Monday 17th December, the morning before the Christmas lunch, and we would like everyone to get involved. We are going to harness our collective creative powers to come up with ideas for tackling three key topics that feature in the New Operating Dynamic (as introduced by Amie Jackson in the staff briefing and quickfire talks):

- How can we reduce the amount of waste we take/create South?
- How can we better use available space in Cambridge?
- How can we mitigate the impact of SDA spending less time in the Northern Hemisphere – e.g. on equipment, maintenance and operational turnaround?



We also want to capture other good ideas of BAS-wide relevance, so there will also be an 'other' category.

We will be using an online Ideas Management Tool to gather ideas and discussion in advance, which all staff with an internet connection will be able to access. So please watch out for instructions on how to start uploading your ideas – and for those in Cambridge, please put 17th December in your diaries. Thank you.

– Sarah Vincent

BAS Student Symposium 2018

A warm welcome to all of the new BAS PhD Students who have started this October! All students, new and old, got the chance to mingle at the Student Leadership and Communications Development Day at Stevenage. Activities included raft-building, dragon boat racing and the nerve-wracking high-ropes.

Later in the month, over 80 BAS-affiliated students came to Cambridge from all four corners of the UK for the annual Student Symposium.

▲ *Bake Off winner Emily (left)*

Congratulations to all those who gave excellent talks and presented posters, in particular Ella Gilbert and Matthew Brown who won best presentation and poster, respectively.

This year the students took part in a new challenge as part of the Symposium: donning their aprons to create their PhD through the medium of baking. Cakes ranged from smashed chocolate computers (representing the second year of PhD life as an ocean modeller) to a scale model of a fur seal pup, complete with spaghetti whiskers and high-tech tracker.

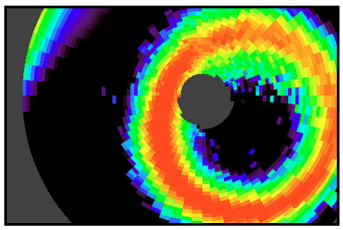
However, the highly-acclaimed accolade of 'Best Baker' was awarded to Emily Potter, for her excellent representation of the Khumbu Valley.

– Ali Teague

Data As Art China Event

In October 2017, images from the BAS Data As Art project were included in the 'Science as Art' exhibition in Shanghai, supported by Jack Smith from UKRI China. Jack reported that the exhibition caused quite a stir and had subsequent interest from both the Foreign and Commonwealth Office and the Royal Society in possibly re-staging it in the UK at some point in the future. The artwork may also be used as part of the official launch of UKRI China, an event including Ministers and the Presidents of all China's main funders of science and technology.

– Jamie Oliver



▲ *Data As Art in Shanghai*

Spotlight On Science – Aug 2018

West Antarctic Ice Sheet (WAIS) retreat in the Amundsen Sea driven by decadal oceanic variability

Mass loss from the Amundsen Sea sector of the WAIS has increased in recent decades and dominates Antarctica's contribution to sea-level rise. That has typically been ascribed to more rapid melting of the floating ice shelves by a progressively warming ocean. However, as satellite records of ice-sheet change grow in length and detail, they have revealed both periodic hiatuses in the acceleration of the outlet glaciers and intermittent episodes of ice thinning.

Observations of ocean temperature, salinity and currents near Dotson Ice Shelf made during eight Antarctic summers from 2000-2016 by scientists from the UK, US and South Korea showed a pronounced cycle from cool conditions to warm and back to cool. The rate at which the ice shelf melted changed by a factor of four between these periods. These observations show that high oceanic variability, rather than rising temperature, accounts for the distinctive behaviour of the WAIS Amundsen Sea sector.

Regional atmospheric changes are driven by the El Niño Southern Oscillation in the tropical Pacific Ocean. The recently elevated rates of mass loss in West Antarctica can be understood as the accumulated response to a succession of warm episodes paced from the tropics, particularly the last two in the mid-1990s and late 2000s. As with many aspects of climate change, the intensity and frequency of extreme events appear to be more important for the WAIS than the mean state of the climate.

– Adrian Jenkins

'Sounds Of Space' At BAS

BAS space weather research scientist Nigel Meredith, artist-engineer Diana Scarborough, leading Australian composer Kim Cunio and professional dancer Becky Byers will collaborate on a science-inspired journey of off-world sounds at BAS Cambridge on Friday 16th November at 2pm.

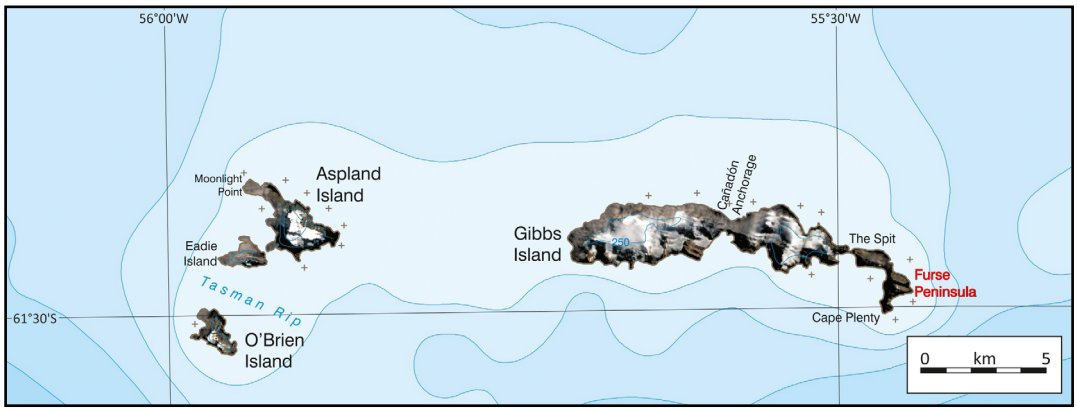
The event includes a scientific presentation followed by a performance with animation, contemporary dance, music and soundscapes. For those not at BAS, you can watch on our YouTube live feed at *www.bas.ac.uk/live*

– Beatrix Schlarb-Ridley

▲ *The event will be livestreamed*

Place-Name Of The Month – #45

Antarctica



▲ *Richard 'Chris' Furse, RN, OBE (born 1935) died on 30th October 2018*

Furse Peninsula (61°28'59"S, 55°27'58"W) is connected to the rest of Gibbs Island (South Shetland Islands) by The Spit, a 2m high beach sometimes awash in heavy seas. It is named after Commander John Richard ('Chris') Furse, RN, OBE (born 1935) who died on 30th October 2018.

Chris Furse was a pioneer of Antarctic mountaineering and lightweight travel, including the use of kayaks. He was a member of the Joint Services Expedition to Elephant Island (1970/71) which made the first ascent of Mount Irving (c. 1,950m) on Clarence Island. Later, he was Leader of Joint Services Expeditions to the rarely-visited Elephant Island Group (1976/77) which used kayaks for travel between islands, and Brabant Island (1984/85), which over-wintered on the island and achieved the first ascent of Mount Parry (2,520m).

Furse published two books documenting the Elephant Island Group and Brabant Island expeditions, and in later life became an accomplished artist, specialising in polar and mountain birds.
– Adrian Fox

NERC DTP-2 Bids Successful

On 10th October, NERC announced successful bidders in the competition for Round 2 of their Doctoral Training Partnerships, the route by which NERC allocates most of its PhD studentships. While NERC centres could not lead a partnership bid (we don't award degrees), our membership of DTPs is crucial to maintaining our postgraduate training programme and ensuring PhD research opportunities at BAS.

All five partnership proposals in which BAS was involved were successful. I would like to thank all BAS staff involved in writing the bids and delivering DTP-1. We can look forward to continuing the recent transformation we've seen in our postgraduate programme.
– David Vaughan

KEP 2018 – Season Of Snow!

Living in the banana belt at KEP means we rarely get enough snow for a snowman, let alone good skiing. However, this year we had a treat, with a long, cold winter and fantastic snowfall preparing the piste.

Taking advantage of the sunny days, the station descended on the slopes. Bob (Boating Officer) and Ollie (Chef) spent a happy few hours carving up Gull Lake track on their snowboard and downhill skis. Meanwhile, KEP Ladies Alpine Club – Paula (Government Officer), Kicki and myself – accompanied by our pro photographer Thies, headed out to Brown Mountain and Gull Lake track for some lovely runs.

Fingers crossed the snow stays so we can enjoy a few more trips out!
– Vicki Foster

▲ *A long, cold winter has meant lots of snow to enjoy at KEP*

BAS Outreach Home And Abroad

▲ *BAS Marine Geophysicist Jude Castelino gave school talks in India*

Recent BAS outreach activities included a morning educational workshop run by Penny Goodearl and Halley Electronics Engineer Ralph Stevenson-Jones for 50 pupils from Oundle School's Year 7, hosted in the Garden Room at the Botanic Gardens Cambridge, in conjunction with a visit to the SPRI Polar Museum.

The BAS programme of school talks extended across the globe in October, with Bird Island Station Leader Jamie Coleman inspiring around 100 high school students (aged 15-18) in Uptown New York to create a short film about plastic pollution and to look at what they can do to reduce reliance on single-use plastics.

Marine Geophysicist Jude Castelino, visiting family and friends in India, gave two presentations to a local school, enthusing around 40 children (9-11 years old) to do a project about Antarctic and have it in their yearbook!

A huge thank you to everyone for your support and STEM Ambassador commitment.
– Kim Quince

A New Erebus For RRS SDA

The original HMS *Erebus* was built in Pembroke Dock, Wales in 1826 and, along with HMS *Terror*, famously took part in the Ross Sea expedition of 1839 to 1843, captained by James Clark Ross.

Now our modern-day *Erebus* has entered the water, and was also built in Pembroke Dock. The new *Erebus* will be the workboat on board RRS *Sir David Attenborough* and is currently being prepared for her sea trials.
– *Will Whatley*

▲ *The new Erebus workboat*

Laws Prize Winner Lectures

BAS honours

▲ *Kelly Hogan and Alex Brearley with Eric Wolff (centre)*

On 16th October, Kelly Hogan and Alex Brearley, this year's two Laws Prize winners, gave fascinating lectures with Eric Wolff, Chair of the Laws Prize Committee, presenting them with their prizes and medals.

Kelly spoke about 'seafloor mapping at the top and bottom of the world – what can this tell us about the great ice sheets?' whilst Alex described 'why small processes make all the difference: the role of eddies and turbulence in the polar oceans'.

Since many staff at BAS now date from post-1987 when Dick Laws retired, a few facts about the prize might be useful. Dick Laws was only the second Director of BAS and took over in 1973 when Bunny Fuchs retired. He completely re-organised the Survey and made it into a much more focussed and directed scientific institute, with the potential for scientists to develop a career in polar science. When he retired, staff donated a considerable sum of money which he decided should fund an annual prize for the best young scientist in BAS, a way of recognising that the future of the organisation rests on the continual recruitment of exceptional young scientists.

The first award was in 1989. Later on he designed the silver medal that each recipient gets. It is good to remember that some of the earliest prize winners like Adrian Jenkins, Mark Clilverd, Anna Jones, David Barnes, Gareth Chisham and Dominic Hodgson are still working at BAS. Others are at CCAMLR, South Wales, PML, Aberdeen, St Andrews – all spreading the word!
– *David Walton*

Pictures From The BAS Archives

Archive Image #72

With endless opportunities for dramatic scenery in faraway places it is hardly surprising that cameras have been going south with BAS personnel since the 1940s. However while penguins, ice, dogs, people and stations have been well documented there remain some overlooked areas in the photographic record. One of these areas is BAS ships, specifically their interiors.

▲ *Officers' galley, RRS Bransfield, 1971/72 (Ref: 2018/66/19)*

This month's image was taken by Second Steward John Henri during RRS *Bransfield's* 1971/72 season. It shows two of the ship's catering staff working in the small officers' galley located above the main galley. Food was prepared by the ship's three cooks in the main galley and then transported by dumbwaiter to the officers' galley where it was prepared to serve in the officers' mess.

John Hughes, Assistant Steward, was responsible for the officers' mess and also acted as Captain Tom Woodfield's personal steward. Catering Officer Eric Heathorn was in charge of the ship's cooks, stewards and catering boys.
– *Kevin Roberts*

And Finally...

▲ *"I've seen that ship before..."*

The Royal Harwich Yacht Club has several polar connections, not least that Scott's first expedition on *Discovery* wore the defaced blue ensign of the RHYC. In a small way the club's polar links were continued on 15th September when Paul Rodhouse and Pete Bucktrout sailed in the RHYC's 175th anniversary race. On passage through Harwich Harbour, they diverted past RRS *James Clark Ross* which was berthed at Harwich Dock.
– *Jamie Oliver*

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