



South New Brighton School students were the first to try out the AR app. © AHT/Anna Clare

## Augmented Reality Brings Antarctica to Life

We are excited to present Antarctic Heritage Trust's leading edge, free augmented reality (AR) app. Launched in late March at one of the Trust's alumni schools in New Zealand, the AR app provides two unique Antarctic experiences: Antarctic 3D Artefacts and My Explorer Journal.

My Explorer Journal is one of the most immersive and creative outreach projects delivered by the Trust's Inspiring Explorers so far. School-aged explorers can use the app in conjunction with a downloadable activity booklet to learn about the history of Antarctic exploration, Antarctic Heritage Trust's Inspiring Explorers Expeditions™, and unique Antarctic wildlife. Augmented reality and 360° videos and photo galleries come to life by using the app to scan codes throughout the booklet.

This is the creative vision of the Trust's Inspiring Explorers Expedition™ participant Anzac Gallate, who travelled to the Antarctic Peninsula on our expedition in March 2020 with partner Quark Expeditions. A marine biology student at the University of Otago, Anzac blends his scientific mind with his creative mind for this project.



IN MEMORY

BOB NORMAN QSO



© AHT

We acknowledge the passing of committed Antarctic, environmentalist and engineer Bob Norman at age 97.

Bob was involved with the Trust since its formation in 1987 and served as a Patron for 27 years from 1993 until retiring from the position in August 2020.

During a distinguished public service career he oversaw many assets, including New Zealand's Scott Base, visiting for the first time in 1967 as Assistant Commissioner of Works. He saw the need for humans to be worthy custodians of the icy continent and to be keenly aware of what we could learn from it.

As head of the Ministry of Works, and as a former State Services Commissioner, Bob oversaw large infrastructure projects throughout the country. One notable example of his engineering vision was the design of New Zealand's national museum, Te Papa.

Bob was intelligent, direct, uncompromising, an innovative and creative thinker, hugely knowledgeable, as well as being an inspired orator and talented poet.

We are so grateful for his many years of support for the Trust. His leadership, guidance, and friendship will be missed.

Videos and artefacts come alive using the AR app. © AHT





Anzac Gallate, Antarctic Peninsula March 2020. © AHT

“Using the app, pictures on the page come to life, like in Harry Potter. I can’t wait to see students using it to explore this incredible place. They can stand in penguin colonies, come face to face with seals, and paddle past whales. They can go from viewing 360 videos to doing crafts activities and journaling, all in the same experience. The journal brings the concept of exploration to life – it identifies what exploration is and shares stories of historic explorers, before focusing on modern expeditions and science down on the Ice.” says Anzac. His artistic talent is also showcased with all illustrations throughout the journal drawn by Anzac.

Users can also explore the Antarctic 3D Artefacts experience on the app to gain insight into the first expedition to winter over on the Antarctic continent. Objects left behind at Cape Adare by Carsten Borchgrevink’s 1898-1900 British Antarctic Expedition and Scott’s Northern Party Expedition can be brought digitally into your own environment. These artefacts have been conserved by Antarctic Heritage Trust’s international team of experts.

App users can project a century-old fruitcake or an explorer’s well-travelled boot onto a surface right in front of them, and examine the artefacts from all angles, while listening to fascinating commentary about each object, and learning more through videos, photo galleries and web links.

This curated collection of everyday items also includes an enamel mug, a toothbrush, a tin of marmalade, a tin of tobacco, and a box of glass photographic plates.

Objects from the huts were brought out of Antarctica under Government permit in 2016 for treatment by an international

team of conservators. While in New Zealand for conservation, a selection of items were scanned using photogrammetry by Tim Handfield of Handfield & Bell Digitising Consultants. This uses high-resolution digital photographs taken from multiple perspectives.

Francesca Eathorne, Trust General Manager Operations and Communications says, “This technology will make Antarctica more accessible to people around the world, and encourage the spirit of exploration, even if it does have to be in our own backyard due to the global pandemic. These artefacts connect us to the first explorers in Antarctica and the app enables us to keep these stories alive as a source of inspiration.”

## App Partners

The Trust would like to thank our partners for their time and generosity in helping create this exciting digital resource.

New Zealand-based company Staples VR worked with Anzac to bring the explorer journal to life using augmented reality through the Trust’s dedicated AR app.

Aliesha Staples, CEO of Staples VR says, “Being able to bring Antarctica to the world using emerging technology such as augmented reality in a photorealistic way makes this project not only technically challenging but incredibly important to do right. Working with Anzac to develop his ideas into an education tool that transforms into an immersive document using the AR application has been a mammoth task but when you see the final product come to life it was worth the many hours to develop.”

To capture the Antarctic 3D artefacts the




Students watching a video with the app. © AHT/Anna Clare

Trust partnered with Australian-based Tim Handfield (Handfield & Bell Digitising Consultants) for photography and scanning and Trevor Coates (Leapfrog Strategic Communications) for 3D rendering and model refinement. Photographer Tim Handfield says, “It was a privilege to be entrusted with the 3D scanning of these amazing heritage artefacts and to see the resulting virtual objects in the AHT augmented reality app.”

Download these Antarctic experiences for free with the Antarctic Heritage Trust AR app.



Download a PDF of My Explorer Journal from [nzaht.org](http://nzaht.org)



# Announcing our Inspiring Explorers™ Fund

2020 Inspiring Explorers Sadra Sultani and Ihlara McIndoe kayaking on the Antarctic Peninsula. © AHT/Mike Dawson

Thanks to our supporters like you, the Antarctic bases of legendary polar explorers Captain Robert Falcon Scott, Sir Ernest Shackleton and Sir Edmund Hillary are being preserved for future generations. Like you, we believe that the early explorers' stories and journeys are iconic. Whether they ended in success or failure, fame or obscurity they were incredible.

What binds those early explorers is a shared and common trait – an explorer mindset. As Shackleton said, "I believe it is in our nature to explore, to reach out into the unknown." An explorer's mindset embodies curiosity, embraces uncertainty and develops resilience. These qualities are more critical in today's world than ever before. They will be crucial in shaping our shared future.

That's why we're launching the Inspiring Explorers™ Fund. This new fund will support the Inspiring Explorers™ programme, which is dedicated to sharing the world's greatest polar exploration stories and growing the next generation of explorers.

This programme isn't new, but we hope to continue it for years to come. Launched in 2015, our inaugural expedition was the crossing of South Georgia Island. Four more Inspiring Explorer Expeditions™ have followed to Greenland and the Antarctic Peninsula. In 2019, we launched our first New Zealand-based initiative, the Young Inspiring Explorers™ Summit in Christchurch – Gateway City to Antarctica. Following this was the launch of our Inspiring Explorers™ Education programme in 2020 with the Hillary's Hut Virtual Reality Experience, sharing Hillary's legacy with students

across New Zealand and the world.

Over the past six years, these programmes have grown and continue to have a powerful impact. The participants have delivered hundreds of presentations, created art, music, films, and more to share their experience. Like Anzac Gallate, Sadra Sultani, and Ihlara McIndoe, whose stories are shared in this newsletter, their outreach creates a ripple effect across their community and the world.

With your help, we can continue initiatives like this through the Inspiring Explorers™ Fund. This fund will offer even more opportunities for young people to explore what might be possible.

**This new fund will support the Inspiring Explorers™ programme, which is dedicated to sharing the world's greatest polar exploration stories and growing the next generation of explorers.**

We have over 15 activities planned for the next two to three years of the Inspiring Explorers™ programme. These include an annual Explorer Conference, Young Inspiring Explorers™ Summits, and Inspiring Explorers Expeditions™. Education experiences include continuing our VR schools tour and creating more virtual content like our new augmented reality app, allowing people to become Antarctic

explorers from anywhere in the world.

The new Inspiring Explorers™ Fund is now live on our website. As a registered New Zealand charity, we need to raise enough donations to fund the 2021-22 Inspiring Explorers™ programme. We welcome donations of any size to help grow the next generation of explorers.

## Donations Matched Dollar for Dollar

Thanks to some generous donors, all donations to the Inspiring Explorers™ Fund will be matched dollar for dollar for a limited time. This means that your donation of \$50 would become \$100 - inspiring twice as many young explorers!

We look forward to sharing the impact our Inspiring Explorers™ Fund donors are having in future newsletters.

**If you have questions or would like to learn more, please contact:**

**Patricia Mackenzie**  
**Development and Philanthropy Manager**  
**Phone: +64 021 198 9853**  
**Email: p.mackenzie@nzaht.org.**

## DONATE NOW

and your gift to the Inspiring Explorers™ Fund will be matched **DOLLAR FOR DOLLAR!**

Visit **nzaht.org** or call us at **+64 3 358 0212** to give today.



# Sadra's Inspirational Outreach

Young people on Inspiring Explorers Expeditions™ share an experience-of-a-lifetime in one of the most extreme and remote places on Earth. They return home filled with memories of their incredible adventures, the jaw-dropping sights they have seen, the extraordinary wildlife they observed, and the many ways they have pushed themselves outside their comfort zones.

In the months following the expedition, each Inspiring Explorer delivers their own tailored outreach programme, when they share their exciting stories from the expedition and inspire their community to go out and explore. Given the diversity of each explorer's life experiences and strengths, their outreach programmes can vary significantly – but all reach a wide audience in their own unique way.

Sadra Sultani was a member of the 2020 Inspiring Explorers Expedition™ to the Antarctic Peninsula. The icy, remote landscape of the Antarctic couldn't be more different from dusty, hot, war-torn Afghanistan, where Sadra was born and lived with her family until they came to New Zealand more than a decade ago.

She is the first young Muslim person to be selected as an Inspiring Explorer, and part of a community affected by the tragic terrorist attack in Christchurch, New Zealand on 15 March 2019.

Sadra has been incredibly busy sharing her experiences in the Antarctic with other young people in the Muslim community, while encouraging them to find their own spirit of exploration.

Following the expedition, Sadra, who is a Law and Politics student at the University of Canterbury, ran a series of four inspirational



Sadra Sultani speaking to the Trust's Young Inspiring Explorers alumni. © AHT/Anna Clare

workshops and conferences (both online and in person). During these sessions, Sadra led informal discussions around exploration, which included the self-imposed limits that might stop some people from exploring, and how they might overcome them. She talked about her own fear of deep water, which almost stopped her from applying for the Antarctic expedition, but how glad she was that she pushed through her apprehensions.

Sadra also held six Zoom conferences during New Zealand's lockdown, which were attended by between 50-100 people each time, when she discussed the theme of exploration and talked about her exciting personal experiences during the expedition and the work of the Antarctic Heritage Trust.

In January, Sadra involved 12 young Muslim men and women (aged between 16 and 30) in a virtual camp with exploration as

the major theme, which she organised in conjunction with AYC Auckland, New Zealand. Sadra is currently organising a two-day conference for young Muslim women as a follow up to the camp, and will include numerous exploration activities. "Rather than just talking about it, or reading about it, I want other young people in the Muslim community to experience exploration for themselves, which is so impactful," she said.

Sadra says young people who explore are a key to the future. "When humans explore, we make the world and the universe our classroom. It is the next generation that could make discoveries that will change the world. I'm so grateful to the Antarctic Heritage Trust for creating an environment to encourage discovery through exploration, which is so crucial, especially in the world we are living in today."

## Take a Musical Trip to Antarctica

We are excited to share with you a recording of Inspiring Explorer Ihlara McIndoe's composition, *On Satin Waters*, for violin and viola inspired by her 2020 Inspiring Explorers Expedition™ to Antarctica. The Trust also congratulates Ihlara on her appointment as the NZSO National Youth Orchestra Composer in Residence this year. Ihlara has a very busy year ahead which, so far, has included a move from Dunedin to Wellington, New Zealand to start a new role as a lawyer.



Visit **nzaht.org** to listen to Ihlara's beautiful composition



Composer Ihlara McIndoe with performers Nathaniel Otley (left) and Mark Menzies (right). © AHT

# 2021 Inspiring Explorers Expeditions™

*Two exciting New Zealand-based expeditions will see young people challenge themselves and connect with the spirit of exploration in New Zealand's mountains as part of the Trust's Inspiring Explorers Expeditions™*



Skiing the Mahu Whenua Traverse. © Erik Bradshaw

## MAHU WHENUA TRAVERSE The Grand Opening of the Turk Trail

Applications are open for Inspiring Explorers to take part in the official opening of the new Mahu Whenua Traverse. This expedition will see seven Inspiring Explorers ski cross-country over 50km between Treble Cone and Coronet Peak in the Central Otago region of New Zealand.

The expedition will take place in winter 2021, in partnership with the Mountain Turk Club. This is an exciting opportunity for young New Zealanders to travel a world-class alpine route along the backbone of the Harris Mountains, spending four nights in new purpose built turk huts along the way, with 3781m of elevation gain, and 4029m of elevation loss throughout the journey.

Turk huts are made from large plastic water tanks and they are ideally suited to remote locations with extreme weather conditions. Early turk hut design was pioneered by Al Fastier, the Trust's Programme Manager,

Ross Sea Heritage Restoration Project, in collaboration with Erik Bradshaw, founder of the Mountain Turk Club, and Trust Structural Engineer Win Clark. The Trust uses two turk huts in Antarctica, at the field camp established to support the restoration of Borchgrevink's Huts at Cape Adare. These turks are the first to be utilised in New Zealand.

There will be five places on this Inspiring Explorers Expedition™ that are open for applications from young people aged 18-30 from across New Zealand with experience in backcountry (cross country) skiing and their own ski gear.

Two senior students from Wakatipu High School will have the opportunity to join the team too.



Apply now online at [nzaht.org](https://nzaht.org)

## MOUNT TAPUAE-O-UENUKU EXPEDITION

### In the Footsteps of Hillary

The Trust is excited to continue its partnership with Sir Edmund Hillary Collegiate in South Auckland, New Zealand offering seven senior students and one teacher the chance to take part in an Inspiring Explorers Expedition™ that engages the legacy of the school's namesake as a source of inspiration.

Mt Tapuae-o-Uenuku, in Marlborough New Zealand, was one of Sir Ed's first significant mountain climbs. These Inspiring Explorers will undertake weekly fitness training sessions and a mountain skills training weekend at Mt Ruapehu, culminating in an ascent of Mt Tapuae-o-Uenuku, with guides, in late 2021.

## Governance

2019 and 2020 Inspiring Explorers Expedition™ mentor Mike Dawson has been appointed as a Governance Intern on the Trust's Board. Mike is a retired New Zealand representative athlete with over 15 years' experience in the high-performance sport environment as an athlete, advisor and coach. He is a double Olympian, New Zealand Olympic Committee Athlete Commission elected member, Chair of Rotorua Athlete Development Trust and founder of Kiwi Creations, a New Zealand-based film production company.

In January 2021, Inspiring Explorer William Pike's term as a Governance Intern came to an end. The Trust would like to thank William for his commitment to the Board over the last two years. His perspective and insights have been invaluable and we greatly appreciated his contribution. The Trust looks forward to continuing our working relationship with William through the collaboration between our Young Inspiring Explorers™ programme and William Pike Challenge.



Mike Dawson. © AHT/Marcus Waters



# Covid-19 and Antarctic Operations

Covid-19 has had far reaching effects worldwide. Antarctica is no different. Covid-19 has affected the Trust's Antarctic programmes resulting in a reduced team and shorter period spent on the Ice in the 2020-21 summer season. Planning for the upcoming 2021-2022 season continues

within the constraints of border restrictions and operational viability.

At this stage, the Trust is making plans to progress our on-Ice annual monitoring and maintenance work programme at the Ross Island expedition bases, as well as to continue planned major works at Cape

Adare with the assistance of Antarctica New Zealand. Keep an eye out for the next newsletter for an update.

Meanwhile, we plan to continue our programme assisting our sister Trust UKAHT conserve the historic sites of the Antarctic Peninsula.



The AHT conservation team at Scott's Terra Nova Hut at Cape Evans during the 2020-2021 season © Kat Vaughan



Hamish Griffith takes a virtual trip to Sir Ed's Hut. © AHT/Anna Clare

## Hillary's Hut National VR Tour

The Trust is touring the Hillary's Hut Antarctica Virtual Reality Experience around New Zealand schools and community venues, including libraries and museums.

Since launching the VR experience last year the team have engaged with more than 2,300 students and members of the public showcasing this unique experience.

Sarah Bouckoms, the Trust's Public Engagement Officer, and Dr Gabriela Roldan, VR Tour Project Manager (both experienced Antarcticans) are relishing the opportunity to bring Antarctica to more New Zealanders. Sarah says, "The students

love that they get to 'go to Antarctica' and learn more about what makes this place special to the world. I love sharing my stories from the Ice with the students and encouraging them to think about all the different roles that people do on the Ice to support important science programmes. Lots of students know about Sir Ed Hillary and his Everest expedition; however they don't know much about his time in Antarctica. It's fantastic to see the students engage with his hut in Antarctica through this immersive VR experience. That acts as a gateway to learning more about science, the importance of Antarctica and what it means to be an explorer today."

The team has also taken the VR experience to smaller regional areas around New Zealand and has been thrilled with the response. Many communities have noted that technology experiences like this don't often travel to smaller places. Uptake to try the experience at local libraries and community venues has been so great the team plan to revisit a number of areas over the coming year.

This initiative is part of the Trust's Inspiring Explorers™ Education programme. Along with the VR, the team share other Antarctic education resources, such as the AR app with teachers and educators, creating more access to Antarctica, its history and the Trust's conservation work there. The VR experience is available free of charge thanks to Principal Sponsor Ryman Healthcare and New Zealand Tour Sponsor Dulux NZ.



If you would like our team to bring the VR to your local school or community venue in New Zealand, register online at [nzaht.org](https://nzaht.org)



You can also download the Antarctic Heritage Trust VR app for free on Google Play or the App store to try out the 2D experience on your own device, or the 3D experience if you have a cardboard headset.



# Alumni News

## Bridget Kruger

After 12 years abroad, Bridget (Inspiring Explorer 2018) has returned home to Queensland, Australia and created a women's empowerment and adventure retreat business that, since COVID-19, she has transitioned into online programmes and in-person meetings within her home state. She is also heavily involved in raising awareness around sexual assault and is creating nature-based programmes that help victims through this journey. Bridget is also training to compete at the world championships in outrigger canoeing/Waka Ama.

## Caitlin Wright

Young Inspiring Explorer (2020) Caitlin was awarded the 2020 Community Spirit Award by her school.

## Charlotte Blake

In April, Charlotte (Young Inspiring Explorer 2020) represented Canterbury at the National Interprovincial Age Group Athletics Championships, and was named Overall National Girls Interprovincial Age Group Champion.

## David Harrowfield

David (polar historian and inaugural Trust Executive Officer) is currently working on writing his memoirs. In addition to personal reminiscences about his time with the Trust, David plans to include interesting information that never made its way into official reports or other publications. This will be compiled with memoirs on his university field work.

## Geoff Cooper

In addition to his role as UKAHT Heritage Programme Manager, Geoff (Heritage Carpenter 2016-2017) has been spending time on other heritage projects, including conservation carpentry work repairing historic timber framed buildings in Suffolk. Over the last five months Geoff has been working on an early 15th century timber framed former pub which was extensively damaged by a thatch fire.



Geoff Cooper © AHT/Lizzie Meek

## Isobel Ewing

After a move back to New Zealand, Isobel (Inspiring Explorer 2017 and inaugural Governance Intern) settled in Wanaka in January and has taken up a reporter role with independent news organisation Crux. She is excited to help build a sustainable local news model and also spend plenty of time out in the backcountry.

Isobel spent 2020 in Budapest working as a TV correspondent for global broadcasting agency Feature Story News. She arrived in Hungary as Covid-19 began to take hold in China, and her role became dominated by reporting on the virus, including a stint at the World Health Organisation in Geneva in February as the global health crisis unfolded.

## Leah Stewart

Inspiring Explorer Leah (2019) recently competed in her first National Championships for cross country mountain biking, finishing fourth. She has also founded a support group called Kidney Donor Whānau with support from Kidney Health New Zealand, to provide donor to donor peer support for living kidney donors and those interested in donation in New Zealand.

Leah has also spent time volunteering at the Outward Bound School of New Zealand



Leah Stewart © KDA

on their adapted courses for people with physical and intellectual disabilities. She recently got engaged to her partner Jordan, whom she met on an Outward Bound course.

## Mark Adams

A lot of the conservation work Mark has undertaken since his time on the Ice working on Discovery Hut (2013-14) has been restoring huts, tin sheds, and wooden granaries. Two current projects include repairing a roof that was blown off a boat house beside a loch in the far north of Scotland, and to stabilise an old tin school house, restore the exterior, and make a new entrance for the barn owls living in the roof.

## Mike Dawson

In March, Mike (Inspiring Explorer Expedition mentor 2019 and 2020 and Governance Intern) completed the GODZone multi-day, non-stop, adventure race for teams. Mike said it was an amazing challenge and a great test of mental fortitude to race for six and half days through some of the North Island of New Zealand's most gruelling and rugged terrain. The race involves 666km of biking, trekking, kayaking and pack rafting. "When you're racing that long without sleep it's vital to take each stage minute by minute," said Mike.



Charlotte Blake © Adam Blake



Mike Dawson (left) with his GODZone teammates. © GODZone



IN MEMORY  
DR KERRY MCCARTHY



Dr Kerry McCarthy. © Johannes van Kan

The Trust is sad to share the news that our long-time collaborator and friend Dr Kerry McCarthy died in January, after a journey with cancer over several years. Kerry was deeply passionate about Antarctic history, and explored that interest during her 17 years as a Curator at Canterbury Museum (New Zealand), which has a large Antarctic collection. Alongside her great friend and

mentor Antarctic Curator Baden Norris (d 2018), she had delved into many of the stories of the heroic era, and her thesis for her PhD in Philosophy centred around the photographs of Ernest Joyce, of Shackleton's *Nimrod* expedition.

Kerry had worked with us on several projects to share the stories of the heroic age of exploration in Antarctica. The most recent and largest of these was the hugely successful *Breaking the Ice: The First Year in Antarctica* exhibition (Canterbury

Museum, Christchurch New Zealand, 2019), which saw more than 200,000 people visit the Museum during its showing. Kerry had an ability to find the story 'hook', and illuminate stories with a keen sense of what was compelling. Her exceptional professionalism and wry humour made her a highly valued member of the team, and she will be much missed.

IN MEMORY  
KATALINA CARTER



Katalina Carter at the Young Inspiring Explorers™ Summit (2019). © AHT

It is with great sadness that the Trust shares the news of Katalina's passing at the age of 14, from a medical event. Katalina attended the Trust's inaugural Young Inspiring Explorers™ Summit in 2019 as one of only 20 young people selected from across New Zealand. She became an enthusiastic and engaged member of Trust's alumni programme,

including welcoming the 2020 Young Inspiring Explorers™ Worsley Weekend graduates into the programme and presenting them with their certificates.

Katalina was a promising young leader, and a talented singer who also enjoyed road cycling, swimming, and drawing. Our deepest condolences are extended to her family.

## Emma Waterhouse Scholarship



Trust Antarctic Explorer member, and former Antarctica New Zealand staff member, Emma Waterhouse was passionate about Antarctica. Very sadly, Emma passed away recently. Before she died, she established the Emma Waterhouse Scholarship for Women in Natural Sciences at the University of Auckland, New Zealand.

Emma was a leading practitioner in environmental management and a keen proponent of encouraging women to study and practice in the scientific world. Her experience spanned the development, water and resource sectors, fisheries and the Antarctic. Her lifelong fascination with natural systems led to a drive to positively change the impact of human activity on the environment.

The scholarship Emma established will go directly towards supporting ongoing undergraduate and postgraduate scholarships in this field, and her family are keen to promote the opportunities this scholarship will provide for young women who might otherwise struggle financially to achieve their goals.

For more information visit [Auckland.ac.nz](https://auckland.ac.nz).

## Thank You

We welcome the following new members:

### Bronze

Andy Palmer (New Zealand)  
Mathieu Sellier (New Zealand)  
Gabriel Corban (New Zealand)  
Christian Miller (New Zealand)  
Finn McIntyre (New Zealand)  
Tung Ming So (New Zealand)  
Mandy Speers Volpe (United States)

If you would like to support our work, we would welcome your donation or support as an Antarctic Explorer Club member.

More information on how to support the Trust can be found on our website.

[nzaht.org](https://nzaht.org)