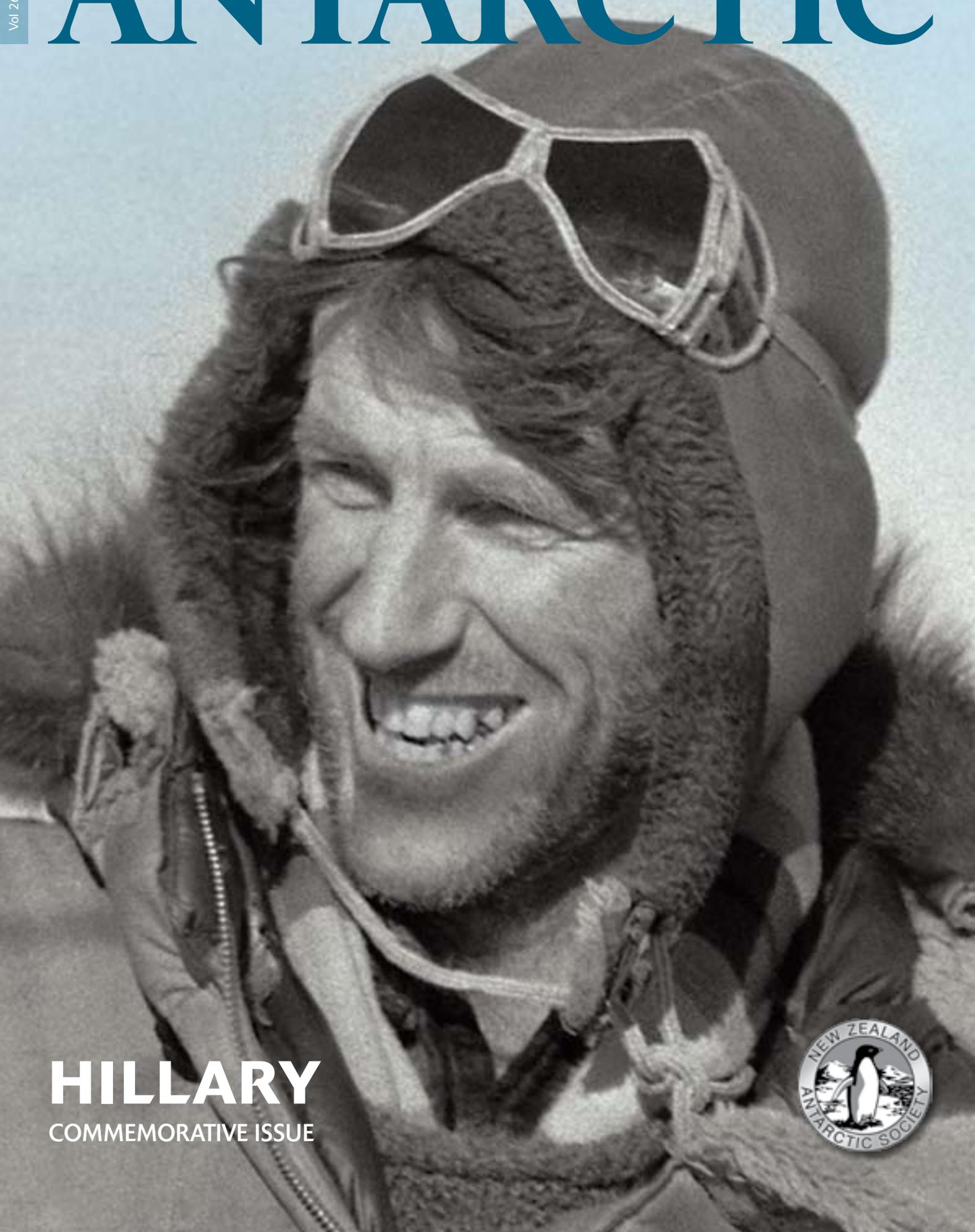


THE MAGAZINE OF THE NEW ZEALAND ANTARCTIC SOCIETY

ANTARCTIC

Vol. 26, No. 1, 2008



HILLARY
COMMEMORATIVE ISSUE



Commemorating Antarctic Achievements

2007 was a significant year for New Zealand, marking the 50th anniversary of the permanent establishment of New Zealand's Scott Base, Ross Island, Antarctica.

The anniversary was celebrated in many ways around the country and at Scott Base itself. The hub of all the activity was Christchurch, where a small committee of people, led by Stephen Hicks and David Harrowfield organised the event that would be the highlight of the celebrations – the anniversary dinner held the weekend of September 28, 29 & 30 at the Wigram Air Force Museum.

The celebrations were to be reported on in *Antarctic* in the final edition (no. 4) of volume 25, but with the death of Sir Edmund Hillary it seemed inappropriate to mix photos of Sir Ed at the celebrations along with the sad news of his passing. So, this current issue of *Antarctic* reflects on the 50th anniversary celebrations as a tribute to Sir Ed and to all the other members of the Antarctic community that contributed in some way, no matter how large or small, to the 50 years of New Zealand's achievements in Antarctica.

The anniversary weekend events turned out to be one of the last final public appearances made by Sir Edmund Hillary before his death on January 11, 2008. Since those celebrations, other members of the Antarctic community have also passed away. Dr. Bernie Gunn, IGY geologist, and Edward Burrows, are two such members and tributes to them will appear in a later issue of *Antarctic*.

2008 is also a significant year for the New Zealand Antarctic Society, with the Society celebrating 75 years of existence. Planning is currently underway to mark this milestone, including the proposal to host the 2008 AGM on 3 November 2008 in Wellington, exactly 75 years to the day as the very first meeting of the New Zealand Antarctic Society.

As the Society moves forward, the *Antarctic* magazine moves forward with a new publisher, GUSTO Design of Wellington. As editor, I welcome on board two assistant editors, Janet Bray and Natalie Cadenhead. I also congratulate those newly elected and re-elected as officers of the Society for 2008, including our new National Secretary Linda Kestle, our continuing President Norm McPherson and continuing National Treasurer Lester Chaplow.

Michelle Rogan-Finnemore
Editor, *Antarctic*



www.antarctic.org.nz

Cover photo: Sir Edmund Hillary shortly after arriving back at Scott Base © Antarctica NZ
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NEWS

Priceless Penguin Sketches Discovered	2
Wind Power for Scott Base	3
First Venezuelan Mission to Antarctica	3
UN Decision on Australia's Antarctic Continental Shelf	4
Commemorative events held in Wellington	5

50TH ANNIVERSARY CELEBRATIONS

New Zealand Celebrates	6
Society Event Draws Big Crowd	10

HISTORY

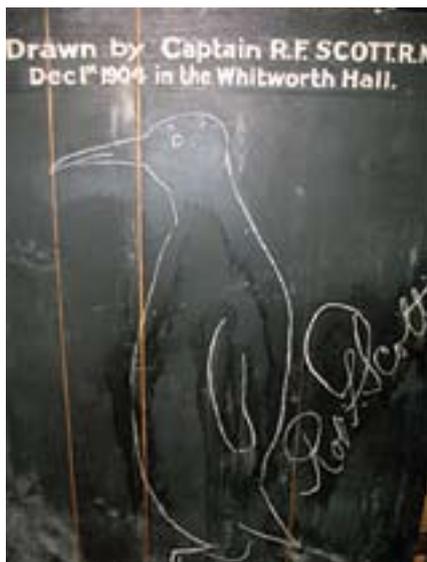
Photography comes to the Polar Regions... almost!	12
Treasures from Canterbury Museum: May Moore's autograph book	17

SCIENCE

Understanding glacial history in the central Transantarctic Mountains	18
Wilkins Ice Shelf under threat: a sign of climate change	20

Priceless Penguin Sketches Discovered

Two fragile chalk drawings of penguins, sketched by the explorers Robert Falcon Scott and Ernest Shackleton, have been discovered in a basement at Cambridge University, UK.



The sketches, which date from 1904 and 1909, were created by the renowned explorers and were probably drawn to illustrate public lectures the two gave after returning from their respective Antarctic voyages in those years.

Dr Huw Lewis-Jones, a historian and curator of art found the chalked images on blackboards that were found lying together in the basement of the University's Scott Polar Research Institute. Nobody is sure when they arrived or how they found their way to Cambridge. "We have absolutely no idea how we got them and we are still trying to find a record of them arriving in our collections, but I am sure they are authentic", Lewis-Jones said.

They were drawn at public lectures in front of an enthusiastic audience, to laughter and to cheers, and then signed with a flourish. It's like having the explorers' autographs, only more

It's like having the explorers' autographs, only more wonderful, because each has signed their name next to a hand-drawn penguin.

wonderful, because each has signed their name next to a hand-drawn penguin.

Both Robert Falcon Scott and Sir Ernest Shackleton were huge national heroes and became legends in their own lifetime because of their feats exploring the Antarctic. Each saw penguins there for the first time and they toured Britain extensively when they returned home. Hundreds of people flocked to town halls up and down the country to hear them talking about their experiences and doubtless some in the audience asked them to draw what they had seen. To a Polar historian, the pictures make these explorers much more immediate, giving people a glimpse of the excitement that greeted them when they came home.

Both of the images are very fragile, and staff are appealing for people to give donations that will help them have the chalk images cleaned and restored so that they can go on display. Plans are also afoot to invite famous modern-day explorers to draw their own penguins, creating a collection of Antarctic birds drawn by Polar pioneers. Heather Lane, librarian and keeper at the Scott Polar Research Institute, said: "We are delighted to have rediscovered these sketches, and we want to be able to give them pride of place in our new museum.

Visit www.spri.cam.ac.uk/friends/polarbytes/46/ for photos of the chalk sketches and for updated information on how the drawings got there in the first place! 🐧

Wind Power for Scott Base

Antarctica New Zealand and Meridian Energy are about to embark on a project to build the southernmost wind farm in the world.

The project will be part of Antarctica New Zealand's contribution to the joint logistics pool with the United States Antarctic Program on Ross Island, Antarctica. The scheme will reduce power generation fuel consumption and will involve the construction of three wind turbines on the Crater Hill site.

"It is no mean feat, in extreme polar conditions, to provide a smooth supply of electricity to our scientists working at Scott Base. This is impressive technology, and it will enable an interface between the existing diesel generators and the wind turbines to ensure the lights go on, and stay on," said the New Zealand Minister of Foreign Affairs.

Substituting renewable energy for existing fossil fuel use is a way of reducing environmental emissions and the environmental risks associated with getting the fuel to the bases.

The project will cut consumption by approximately 463 000 litres (122 300 gallons) of fuel every year on Ross Island, reducing fuel consumption by 11%. The project will also result in a reduction of greenhouse gas production by 1240 tonnes of carbon dioxide annually.

Meridian Energy, New Zealand's green energy leader and electricity generator will bring its expertise to the development, construction, operation

and management of wind energy to the Antarctic project. Ken Smales, Director of Growth and Development at Meridian, said this is an opportunity to promote and publicise New Zealand's environmental principles and to showcase Meridian's renewable energy development capabilities.

"Meridian is really excited to be playing our part in bringing cleaner energy alternatives to Antarctica and we've been working closely with Antarctica New Zealand to make this happen," said Ken Smales.

"The project will further demonstrate New Zealand expertise as a leader in wind generation and help New Zealand fulfil its commitment to minimise the environmental impact of its presence in Antarctica."

Antarctica New Zealand and Meridian have been investigating the project since early 2005.

Site works for the project will commence in November with plans to have the first stage fully operational by the end of February 2010.

Further developments with the potential to reduce power plant fuel consumption and greenhouse gas emissions at McMurdo Station and Scott Base by up to 50% are under investigation. 

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First Venezuelan Mission to Antarctica

Venezuelan scientists and navy officers returned home in late March, marking the successful end of Venezuela's first expedition to Antarctica. The group set sail on a Uruguayan ship to undertake scientific investigation with a particular focus on climate change. The leader of the expedition said he hoped to establish a Venezuelan research station on the continent. 



UN Decision on Australia's Antarctic Continental Shelf

The United Nations (UN) has accepted Australia's claim to nine distinct marine areas around the far edge of the Australian continental shelf, including claims to marine areas in the Antarctic area south of 60° south latitude.

Under the UN Convention for the Law of the Sea, countries may legally apply to have the boundaries of their continental shelf marine area extended. Any such extension gives that country access, potentially, to a greater amount of marine natural resources included within that boundary.

The recent decision by the UN regarding Australia's continental shelf extension included the Kerguelen Plateau around Heard and McDonald Islands, which extends

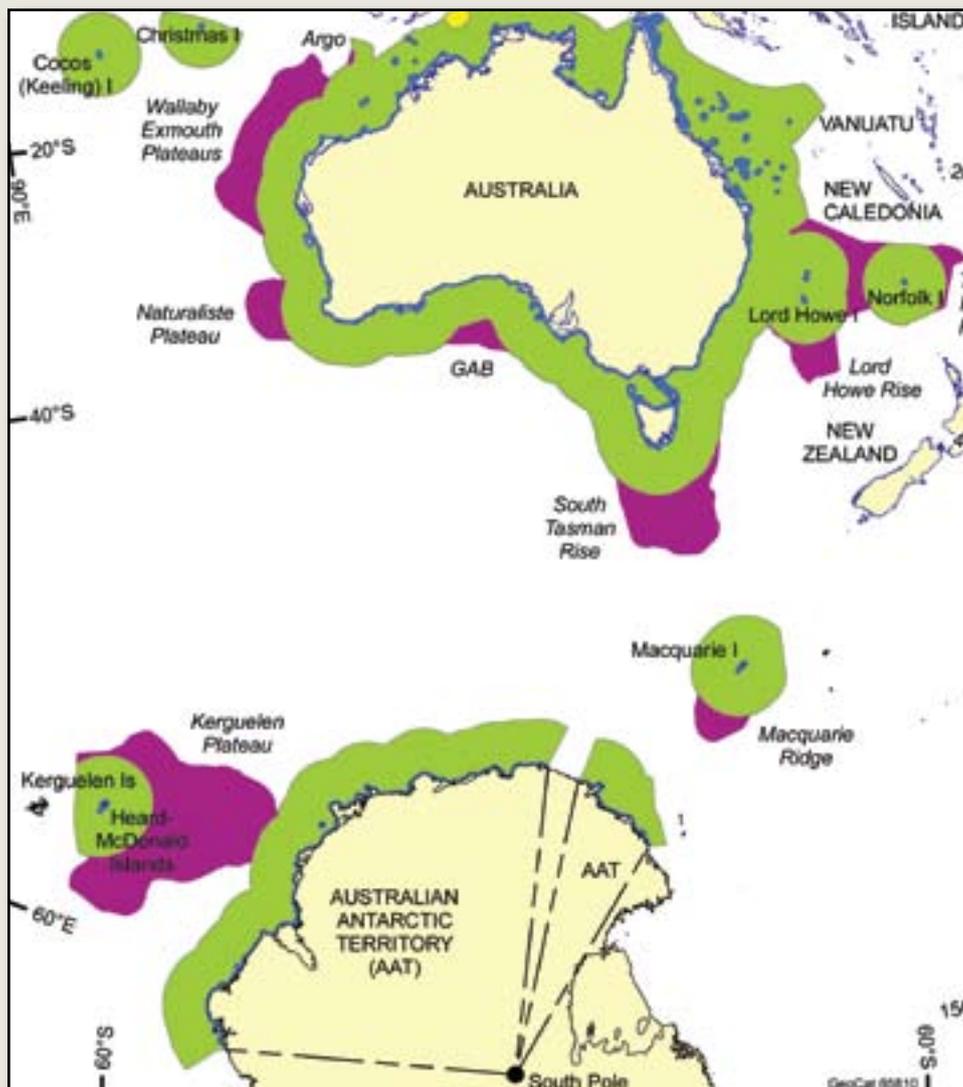
southwards, below 60 degrees south, into Antarctica.

However, this legal right to an extension under the UN convention may be in conflict with the legal rights under the Antarctic Treaty 1959. The Antarctic Treaty says that no new claims or extension of existing claims to Antarctic territory can be made while the treaty is in force.

The UN decision may also mean that Australia has become the first country to be granted exclusive property

rights in the Antarctic. This is the first exclusive property rights allocation for the area south of 60° south and it will be contentious.

New Zealand, UK, Norway and France, all Antarctic territorial claimants (like Australia) have made similar submissions to the UN regarding the continental shelf area around Antarctica. No decision from the UN has been made regarding these submissions. ↴



- Territorial sea and internal waters
- Areas of marine jurisdiction within 200 nautical miles of Australia and its external territories (1 nautical mile = 1852 metres)
- Area of Australia's continental shelf beyond 200 nautical miles as confirmed by the UN Commission on the Limits of the Continental Shelf

Commemorative events held in Wellington

The New Zealand Antarctic Society continues to recognise the importance of Antarctic anniversaries by hosting a series of commemorative events. The 17 March 2008 event in Wellington, celebrating the 50th anniversary of the return of the HMNZS Endeavour, was the latest in the series.

HMNZS *Endeavour*, carrying TAE and IGY members and support personnel, had departed Wellington, NZ, at 1330 on 15 December 1956 to formal farewells and best wishes from the public and the Governor General. On the morning of Monday 17 March 1958 the HMNZS *Endeavour* returned, sailing back into Wellington on a glorious spring day. Sir Edmund Hillary, Vivian Fuchs and others were returning from an extraordinarily successful expedition to and across the Antarctic continent. Large crowds turned out to see the ship berth and later at the civic reception outside the Town Hall. Family and friends gathered at Shed 19 for a morning tea and the Government welcomed the expeditioners with a state luncheon at Parliament. It was an occasion that all New Zealanders, along with the wider Commonwealth, celebrated – the successful completion of an outstanding polar achievement.

Sir Ed noted: “I think all of us are especially pleased to be coming back to Wellington because it was here that the expedition was largely mounted and was assisted”.

The Society continues to recognise the importance of celebrating these historic events. On Friday 15 December 2006, at 1330, the Society organised a commemoration held on the Wellington waterfront and arranged for the design of a plaque by Navy artist, Colin Wynn. One half of the bronze plaque was then unveiled (See *Antarctic*, vol. 25, no. 1 & 2, 2007, pg. 22).

On Monday 17 March 2008, the second half of the bronze plaque was unveiled on Frank Kitt’s Park Ships’ Wall by the wife of the Governor General, Her Excellency Mrs Susan Satyanand. Other speakers included the Chief of Defence, Rear Admiral David Ledson, Wing Commander John Claydon, IGY Member Vern Gerard and HMNZS *Endeavour* crew members, Able Seaman ‘Brushes’ Nolan and Leading Cook Eric Scoble. Anecdotes were shared by the expeditioners and attendees later enjoyed morning tea at the Museum of City and Sea. The event was open to the



Edith Tito, Ray Tito, Commander Bill Smith and Bruce Seymour-East at the Prime Minister’s function.



(Left to right) Rear Admiral David Ledson (Chief of the Navy), Her Excellency Mrs Susan Satyanand, Wing Commander John Claydon (RNZAF TAE), Members of the HMNZS Endeavour crew: Leading Cook Eric Scoble, Electrical Mechanic Bob Pinker, Able Seaman Brian ‘Brushes’ Nolan & Commander Michael Waymouth, RNZN (former Executive Officer) at the Wellington plaque unveiling ceremony.

public and was attended by a number of TAE, IGY, Royal NZ Navy and Royal NZ Air Force personnel.

The day concluded on a particularly special note, with the Rt. Hon. Pete Hodgson, Minister of Research, Science & Technology, the New Zealand Prime Minister, the Rt. Hon. Helen Clark, invited expeditioners, family and Society member’s enjoying an evening function at the Great Hall, Parliament. This event mirrored the support the expeditioners had enjoyed from the Government of the day in 1958 but it was not just the stately venue that ‘made the day’ for attendees – the Prime Minister’s speech ensured that suitable recognition was made of the 50th anniversary and the work of the whole NZ Antarctic Expedition team. 🇳🇿



New Zealand Celebrates

As part of the 50th anniversary celebrations, Sir Edmund Hillary joined other VIP's and NZ Antarctic Society members to unveil a plaque honouring the men and women of New Zealand who have worked in Antarctica.

By Warren Head

The honoured guests arrived at the Scott Statue for the occasion on a city tram pulled enthusiastically by a team of dogs.

The unveiling of the anniversary plaque commemorating New Zealand's 50 years in Antarctica was one of several highlights of the Antarctic Jubilee held in Christchurch in September.

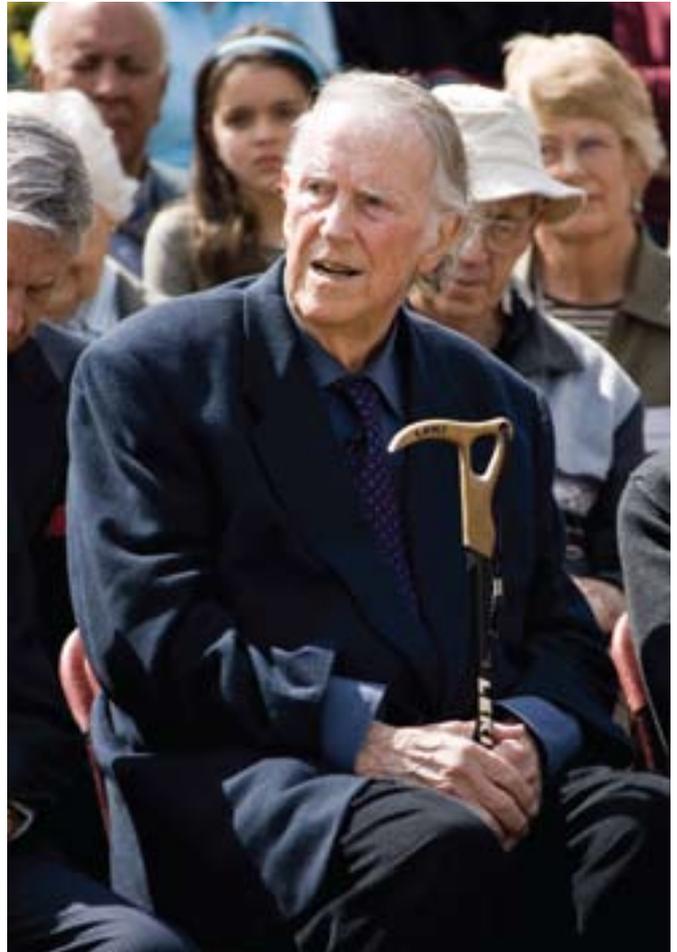
A sizeable crowd gathered in Cathedral Square, central Christchurch, to see the VIP party depart on a historic tramcar of Christchurch Tramways drawn by eight Siberian huskies for the plaque ceremony at the Scott Statue.

Those aboard included Antarctic Society patron and Jubilee guest-of-honour Sir Edmund Hillary and June, Lady Hillary, Jubilee guest speaker American polar explorer Will Steger, Christchurch Mayor Garry Moore, US Ambassador William McCormick; US Air Force General Lloyd Utterback, Commander of the US 13th Air Force; Air Vice Marshal David Bamfield, Deputy Chief of the New Zealand Defence Force; Antarctica New Zealand Chairman Paul Hargreaves and the Dean of Christchurch, Peter Beck.

Meeting Sir Edmund for the first time was a remarkable occasion for Steger. John Henzell wrote in *The Press* newspaper:

“When Sir Edmund Hillary was driving farm tractors to the South Pole, a Minnesota schoolboy was so enthralled by the adventure he vowed to be like his hero. Fifty years later, Will Steger is one of the world's foremost polar explorers and a leading advocate on the need to tackle the global warming wreaking havoc on the planet's ice sheets. But he had never met the man who had inspired it all – until this weekend, when he finally came face to face with Hillary as part of the Christchurch Antarctic Festival.

I was 13 at that time (of the Trans-Antarctic Expedition) and I was inspired by pictures in National Geographic magazine in 1957-58. I used to read everything I could get my hands on, said Steger.



Within a few years, Steger put the inspiration from Hillary into action, following the Mississippi River from his home in the northern United States to its mouth at New Orleans then began polar explorations. These included taking a dog team to the North Pole, making the world's longest unsupported dog sled expedition in Greenland, and then doing a 6000km dog sled journey along the longest axis of the Antarctic continent to raise awareness of the Antarctic Treaty which was then endangered by the prospect of mining.

His efforts saw his own adventures chronicled in National Geographic and led to him joining Amelia Earhart, Robert Peary and Jacques Cousteau as one of fewer than 20 recipients of the magazine's John Oliver La Gorce Medal.

Steger said he knew Hillary was venerated in New Zealand but did not appreciate the extent until seeing it first

hand at the New Zealand Antarctic Society's celebration of the Scott Base anniversary.

I figured he would be but seeing it in person, right there for me that put the historical context into perspective

– there's Scott and Shackleton and Hillary."

The huskies, brought north overnight from the Lindis Pass in the Mackenzie Country, astonished onlookers, as the tram sped down





Worcester Boulevard towards the Avon River under a combination of dog and electrical power. A waiting crowd cheered Sir Ed as he alighted at the Scott Statue.

Antarctic Society president Norm McPherson opened the ceremony. General Utterback laid a Jubilee wreath acknowledging those who had served in United States Antarctic support programmes 1957-2007 and Air Vice Marshall Bamfield a wreath acknowledging New Zealand servicemen and women involved in Antarctica during that period.

Assisted by Wing Commander (retired) John Claydon, Sir Ed unveiled the plaque. A member of the New Zealand Defence Force Band at Burnham played traditional salutes and the Dean of Christchurch provided his blessing on proceedings

The Jubilee plaque was designed by Head Consultants Ltd, in association with the Organising Committee, cast in Wellington by Frampton's Ltd, and sanctioned for installation in the Scott Statue precinct by the Christchurch City Council in accordance with heritage site criteria. 🏹



Society Event Draws Big Crowd



NZAS President Norman C. McPherson QSM. JP



John Claydon (TAE) and polar explorer Will Steger

“Antarcticans” turned out in big numbers to attend a variety of events as part of the weekend of 50th anniversary celebrations in Christchurch. Sir Ed, Lady Hillary, surviving members of the Trans-Antarctic Expedition and the International Geophysical Year joined over 600 other guests at various functions around town.

The weekend of 50th anniversary celebrations held in Christchurch was an opportunity for Antarcticans to catch up with friends, especially at the two main social events. The first, on Friday evening, was the reception held at the Antarctic Attraction at the International Antarctic Centre. Guests had their first opportunity to meet polar explorer and keynote speaker Will Steger, who told audiences of his love of the polar regions and of his plans to return to Antarctica in the near future to bring the issue of global climate change impacts to the public.

The main event and the highlight of the weekend was the anniversary dinner at Wigram Air Force Museum. Owner of the Antarctic Attraction, Richard Benton, was master of ceremonies for the night, which included speeches and entertainment by David Harrowfield, Margaret Bradshaw, Will Steger and NZAS Society President Norm McPherson and included music by the New Zealand Defence Force band.



Surviving TAE and IGY members and family members representing those members who have since passed away, at Wigram Air Force Museum, upon presentation of their 50th anniversary gold medallions

Sir Ed and Lady Hillary were honoured guests at the event along with the New Zealand Governor General and his wife and the US Ambassador to New Zealand and his wife, who joined many of the surviving members of the Trans-Antarctic Expedition and the International Geophysical Year and their families.

This portion of *Antarctic* is delighted to bring you some of the photos from the weekend of anniversary events. Linton Photography of Christchurch took many of these photos and many more are available via their website at:

www.eventphoto.co.nz 📷



Stephen Hicks presents Sir Ed with 50th anniversary gold medallion



Bill Cranfield (TAE) and his wife Helen

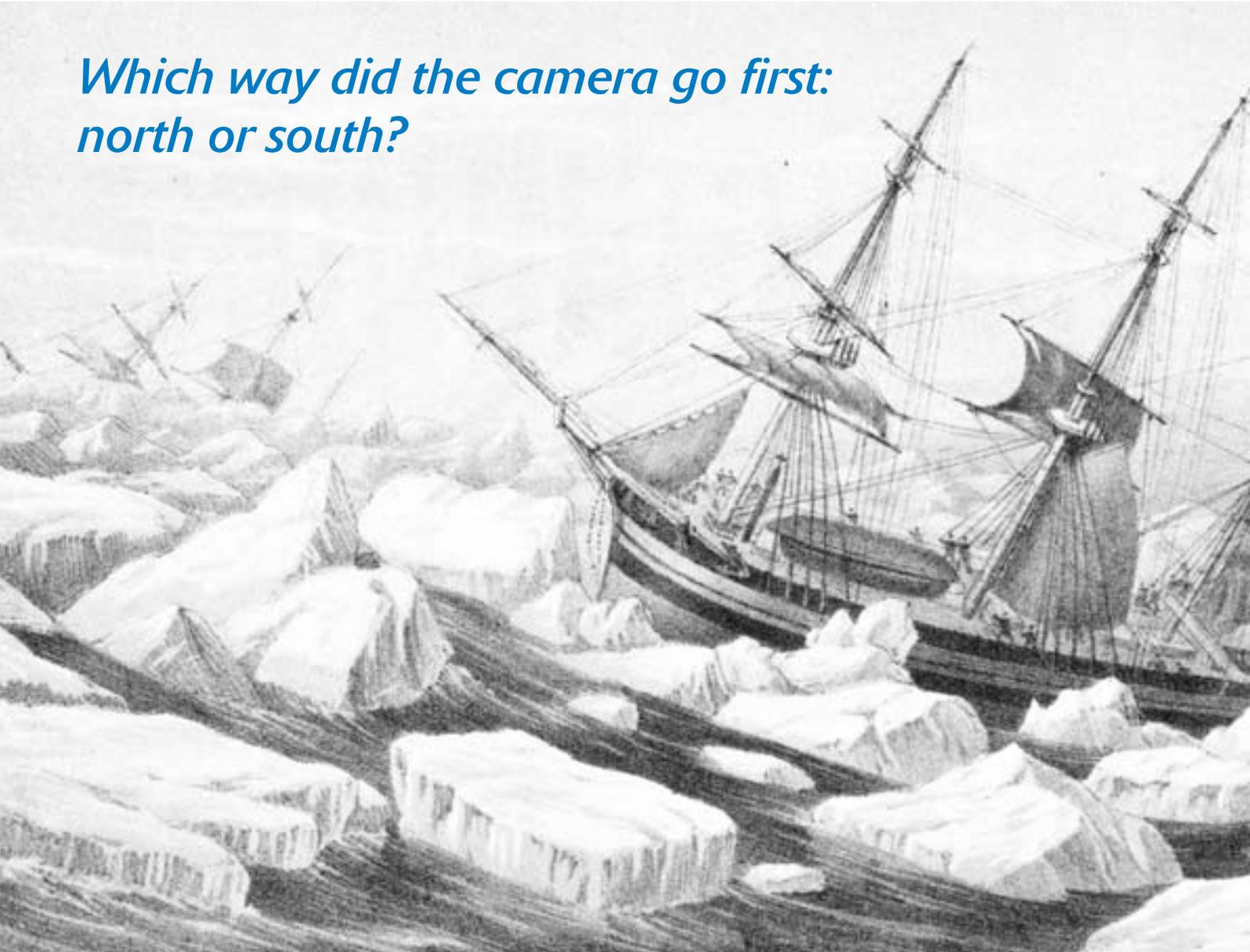
Photography comes to the Polar Regions... almost!

By Glenn M. Stein, FRGS

The Antarctic appears to have edged out her northern counterpart by only a handful of years. James Clark Ross' narrative of his 1839-43 expedition does not reveal any photographic outfit in its inventory, but one of his medical men later noted just such an apparatus. Assistant Surgeon and botanist on the HMS *Erebus*, Dr. Joseph D. Hooker (pictured right) was lecturing about the expedition at the Royal Institution of South Wales in 1846 when he offered these words:

"I believe no instruments, however newly invented, was omitted, even down to an apparatus for daguerreotyping and talbotyping, and we left England provided with a register for every known phenomenon of nature, though certainly not qualified to cope with them all."

Which way did the camera go first: north or south?



In 1839, Frenchman Louis-Jacques Mande Daguerre perfected his process, which was the first to permanently record and fix an image with an exposure time to make it a commercially viable photographic process. To begin with, a silver-coated copper plate was exposed to iodine fumes, inserted into a camera obscura (Latin meaning *dark chamber*) and then directed at the intended subject. Depending on lighting conditions, the exposure times for the earliest daguerreotypes ranged from 10 to 20 minutes, thus ruling out the recording of



moving objects. Rendering a visible image meant another series of chemical fumes and a solution, before rinsing in hot distilled water. Afterward, the delicate surface of the plate needed to be protected under glass in a wooden frame.

Handling highly toxic chemicals and fragile equipment aboard a cramped sailing ship would have been a challenging thing indeed (illustration left). What's more, there was a serious drawback to the daguerreotype process. Once you got an image, it was not possible to produce prints, one exposure equalled one image.

The Ross Antarctic expedition grew out of the eighth meeting of the British Association for the Advancement of Science in August 1838, when a committee was appointed to represent to the British government a series of resolutions related to terrestrial magnetism, which was of central importance to the voyage. One of the committee members was noted astronomer Sir John F.W. Herschel, who made numerous contributions to the development of photography. In fact, it was Herschel who coined the term "photography" in a paper presented to the Royal Society in March 1839.

Herschel became an important link in obtaining daguerreotype equipment for the Antarctic expedition. Daguerre's discovery was made known in January 1839, and several Parisians viewed his images, but the technique was still Daguerre's secret. During a visit to Paris in May, Herschel was shown examples of the new process. Herschel wrote Daguerre on August 1, on behalf of The Royal Society, asking to purchase, "...an apparatus with the proper Camera Obscura and 100 plates properly prepared to receive impressions, and with instructions for its use...If the request appears to you extraordinary, the circumstances of the case will explain it."

Herschel continued, "*Captain Ross (the discoverer of the Northern Magnetic Pole) is about to proceed on a Voyage of Discovery and circumnavigation of the Antarctic Pole, in command of two Ships, the Terror and Erebus, admirably equipped and every way furnished with instruments of Science and Art. Now the Council of the Royal Society are earnestly desirous that the Expedition should sail provided with the invaluable resources furnished by the Daguerrotype process – for depicting scenes they may visit – and as it will be yet 3 weeks before the sailing of the Ships, and it has been stated that within that time your process will probably be divulged – they consider that the importance of the occasion justifies this direct application to you.*

I shall hope for your early reply, and that it will be such as to enable me to announce to the Council that the apparatus and instructions will be forwarded in time (ie to arrive before the 20th August, inst.) Should you wish that the instructions should yet remain for some time secret you may send them sealed and may rely on them not being opened till the Ships have passed the Cape of Good Hope – In that case you will have the goodness expressly to write to that effect."



There is no record of Daguerre's reply, but Hooker's statement during his lecture implies the inventor granted Herschel's request. Details of Daguerre's process were made public at a meeting of the French Academy of Sciences in Paris, on August 19, which was around the time Herschel indicated to Daguerre that the *Erebus* and *Terror* were to set sail. In fact, they did not finally depart until September 30.

The possibility also exists that the Antarctic voyagers may have encountered the daguerreotype during the expedition, while visiting far-flung parts of the Empire. The *Erebus* and *Terror* spent southern winters in Tasmania, Australia and New Zealand. Ross reached Hobart, Tasmania, on April 7, 1841. He departed on July 7, with the next port of call being Sydney, where the expedition arrived on July 14. The ships sailed for New Zealand on August 5, arriving off the Bay of Islands on the 17th (mooring near the port of Kororarika) and did not sail South again until November 23.

The date of the earliest daguerreo-

type outfit in Tasmania is uncertain, but a Hobart printer named Thomas Browne is thought to have been the first resident professional photographer, opening a daguerreotype studio in his shop in 1846. The time and place of the camera's first arrival in Australia, however, is intriguing. The *Australasian Chronicle* announced on April 13, 1841, that a daguerreotype apparatus had been brought to Sydney by one Captain Augustin Lucas (a French merchant mariner, arrived aboard his brother's ship, the *Justine*). The same *Chronicle* article continued on, relating that "...Captain Lucas intends to dispose of the instrument at prime cost...", and this resulted in the earliest documented daguerreotype on the continent being taken in Sydney by mid-May 1841.

Interestingly, the *Justine* made a stopover at the Bay of Islands in New Zealand before arriving at Sydney on March 29 and there was a later visitor worth just a mention. On October 20, the French corvette *Héroïne* anchored off Kororarika, and her captain visited the *Erebus* (with

Ross returning the compliment the following day). The Frenchman spent only two or three days at the anchorage before sailing off on her mission of protecting French whaling vessels.

In addition to the daguerreotype, Hooker spoke of "talbotyping", using the word in the sense of a generic term for photography on paper. Hooker was actually referring to William Henry Fox Talbot's primitive photogenic drawing technique, which did not use a camera. Small objects, such as leaves, could be placed on sensitised paper and exposed to sunlight. This produced a light image of the object against a dark background – a negative image – but nothing more advanced which would be recognised as a true photograph.

At the same time, Talbot had managed to produce very simple negative images on paper in a camera by extremely long exposures of stationary objects. Advancements in the process by the fall of 1840 resulted in what Talbot called calotyping (from the Greek *kalos*, meaning beautiful), but dubbed talbotyping by the British inventor's friends.



Calotyping led directly to modern photography through the chemical development of a latent image in a negative, thus allowing the production of multiple positive prints.

In the summer of 1839, Talbot sent photogenic drawing examples to Hooker. Replying from Glasgow on June 21, the doctor was most pleased with “the imitation of an *etching*”, and asked, “Can that be made available for botanical drawing?” Though Hooker further remarked that one image of a flower “was very pretty as to general effect,” he pointed out the lack of detail (all-important to a botanist): “...it did not express the swelling of the flower, nor the calyx, nor the veins of the leaves distinctly. When this can be accomplished as no doubt it will, it will surely become available for the publication of good figures of plants.” Talbot’s lifelong interest in botany surely gave him an appreciation of Hooker’s comments.

In July 1839, Talbot wrote to Surgeon Robert McCormick (Hooker’s superior aboard the *Erebus*), offering to give both doctors instruction in the photogenic drawing technique. Writing from onboard the *Erebus*, McCormick responded glowingly on the last day of the month,

“that we shall be most happy to avail ourselves of your friendly aid, in an art which promises to be of incalculable value in delineating the various objects of Natural History, which we may meet with during our voyage to the Antarctic Regions....”

McCormick further notes that Ross had given both medical men permission to be away from the ship at the same time around August 5, thus paving the way for instruction in the process.

It is worth noting that, even though McCormick enthused to Talbot about his drawing process prior to the expedition, during the voyage Hooker largely took over responsibility for his superior’s zoology department.

Hooker wrote to his father on March 17, 1840, that he and McCormick “are exceedingly good friends”, but the good doctor “seems to care too little about Natural History altogether to dream of anything of the kind...He takes no interest but in bird shooting and rock collecting; as of the former he has hitherto made no collection, I am, *nolens volens* [whether willing or unwilling], the Naturalist”.

On August 22, Talbot wrote to Ross from London:

“Hearing that you had some intention of making drawings in the Southern Regions with the Camera Obscura I would have offered any assistance in my power to you but that I knew you could not possibly spare the time that would be requisite...I wrote at some length to Mr McCormick who was desirous of putting in practice my method of [photogenic] drawing, but I have heard nothing from him in reply, I presume therefore that my answers to his inquiries were sufficient, & that he did not want any further information. I only mention this lest my letter to him should have miscarried.”

The letter is marked “ans. 23d”, but Ross’ reply is not among the nearly 10,000 letters to and from Talbot handled by *The Correspondence of William Henry Fox Talbot Project*.

Talbot and Herschel were friends who compared notes as they worked, and it is certainly conceivable that Herschel told Talbot about his letter to Daguerre just three weeks previous, asking to purchase a photographic apparatus for the expedition. In addition, Talbot *appears* to make reference to a reply to McCormick’s July 31 letter, but I am unsure on this point.

In his 1846 lecture, Hooker noted a single apparatus being taken on the expedition for daguerreotyping *and* tablotyping, but Talbot’s August 22 letter to Ross certainly implies the offer of a camera. We do not know Ross’ reply the following day, and as the

expedition did not sail until September 30, one of Talbot’s cameras may have made the voyage after all.

Sadly, no known photographic images from Ross’ expedition have survived. Despite McCormick’s and Hooker’s enthusiasm prior to the voyage, perhaps the complex and tedious new processes proved too discouraging on such an arduous voyage. As Hooker commented afterward regarding the many instruments brought on the expedition, “...we left England provided with a register for every known phenomenon of nature, though certainly not qualified to cope with them all.” But taking it one step further, a deeper understanding of Hooker’s situation puts things into context.

Remembering that Hooker was not a sailor, life aboard a naval vessel was in itself a whole new world for the 22-year-old. He had only just completed his medical exams before the start of the journey, and as an assistant surgeon he was subject to naval discipline and had shipboard duties, in addition to his botanical work. He was also a volunteer in the neglected department of marine zoology, and in writing to Dr. Bruce of the *Scotia* expedition seventy years later, he revealed that, “I was the sole worker of the tow-net, bringing the captures daily to Ross, and helping him with their preservation, as well as drawing a great number of them for him.”

Dr. John Richardson (Arctic explorer, author of many books and reports on exploration and natural history of the Arctic, and a friend of Hooker’s father) had warmly encouraged young Hooker in the work; skill with the pencil being a special qualification in dealing with sea creatures which could not be preserved. “To add to our knowledge of the structure of animals,” he insisted, “is the most certain way of attaining a scientific reputation; to be the first to



discover or name a new species is a very secondary matter.”

In writing his father on March 17, 1840, one can appreciate young Joseph’s line of thinking:

“Since leaving St. Helena, my time has been employed exactly as before; the net is constantly overboard, and catching enough to keep me three-quarters of the day employed drawing; the dissections of the little marine animals generally take some time, as they are almost universally microscopic. Though I never intend to make anything but Botany a study, I do not think I can do better than I am doing; it gives me a facility in drawing which I feel comes much much easier to me; it pleases the Captain beyond anything to see me at work, and, further, it is a new field which none but an artist can prosecute at sea ...

My collection amounts to about 200 drawings done from nature under the microscope. ... As I am learning to use my left eye to the microscope, I do not find my eyesight affected even by candlelight.”

Thus, perfecting his drawing skills was essential to Hooker’s future career as a scientist, and this had to be weighed against experimenting with new photographic processes. Joseph Dalton Hooker became the most important British botanist of the 19th century and lived until 1911. He was one of Charles Darwin’s closest friends and eventually succeeded his father as director of Britain’s Royal Botanic Gardens at Kew in 1865.

In the end, the Antarctic expedition left a “photographic” mark on Antarctica when Ross christened Mount Herschel in 1841 (3,335 metres/10,942 feet).

Fewer than two years after returning from service in southern climes, the *Erebus* and *Terror* set out from England in May 1845 on a North-West Passage expedition under Sir John Franklin – allowing photography another opportunity to make polar history.

At Franklin’s request, a complete daguerreotype apparatus was supplied by Richard Beard, a popular London photographer. It was Lady Jane Franklin’s desire that Beard produce two images each of Sir John Franklin and his officers, taken on the *Erebus* prior to the voyage. One set was presented to Lady Franklin, while Beard kept the other; the former resides in the Scott Polar Research Institute, while the latter rests with the Derbyshire Record Office, Matlock.



Commander Francis R.M. Crozier (pictured above) was second-in-command and onboard the *Terror* during Ross’ Antarctic expedition; while he was in the south, Crozier was promoted to Captain.

The ships arrived at the Whalefish Islands, Greenland, on July 4 and departed on the 12th of that month, and a copy of an obscure sketch connected to this stopover was sighted by the author early in 2006. Originally rendered by an officer of the *Erebus*, it is titled *H.M. Ships ‘Erebus’ and ‘Terror’, Franklin Expedition. by Lt. Henry Thomas Dundas Le Vesconte, R.N., one of the above expedition. Taken at Boat Creek, Whale Island [Whalefish Islands], July 12th. 1845.* At first glance, there is nothing remarkable about the drawing of two ships at anchor in a small harbour,

but on closer inspection of an outcropping of rocks, one’s curiosity is barely suppressed (see drawing on page 14). On the rocks there is a man slightly bent down behind a tripod with something atop, evidently oriented toward the ships – a camera? Maybe.

In Franklin’s last dispatch to the Admiralty (dated July 12, from the Whalefish Islands), he wrote, “The magnetic instruments were landed the same morning [July 4]; so also were the other instruments requisite for ascertaining the position of the observatory...” Commander James Fitzjames, in a July 6 letter wrote that, “Levescomte (sic) and I on the island since six in the morning, surveying”, so it may also be a surveyor’s transit in the sketch. According to Le Vesconte’s caption, he drew it on the day the expedition departed the islands, so the question is: Would there have been surveying up until the day of departure? Alternately, in the center of the picture, there is a man standing by a ship’s boat at water’s edge, so perhaps the man on the rocky outcropping was brought ashore to take a photograph before the expedition departed?

However, the sad reality of the expedition’s disappearance blinded any hope of ever seeing historic photographs. In the end, though detailed portraits of the Queen’s explorers put a human face on the Franklin Expedition, they represent the only photographs connected to the voyage. Among the many varied relics and bones recovered over the years by searchers, no part of the daguerreotype apparatus, or any plates, were ever found. During the vain search for Franklin and his comrades, polar photographs finally materialised, painting in black and white the stark realism of northern climes, native peoples – and European intruders. ♣

Acknowledgements

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Treasures from Canterbury Museum: May Moore's autograph book

By Natalie Cadenhead & Michael Morris

Canterbury Museum holds a collection of autograph books, several of which have strong Antarctic connections.

One of the books is a small insignificant looking volume, containing a collection of autographs and messages relating to significant people in the history of both Canterbury (New Zealand) and Antarctica.

The volume was owned by Mary Gertrude Kinsey Moore, known as May. She was the daughter and only child of Sir Joseph Kinsey, well known supporter of Antarctic expeditions and good friend of Robert Falcon Scott. Like her father, May Moore was very active in the Canterbury community where she had a particular interest in cultural and welfare work. Her two main community interests in Christchurch, New Zealand, were the Red Cross Society, where she was a committee member and president for thirteen years, and Canterbury Museum. She was a foundation member of the Friends of Canterbury Museum and donated significant collections of European and Asian decorative arts and Antarctic related objects. The latter included a series of photographs relating to Scott's Antarctic expeditions and reproductions of Edward Wilson's watercolour paintings.

May Kinsey married William Alexander Moore in June 1900, but continued to visit her father and meet his guests, many of whom signed and wrote messages in her autograph book.

This book was used between 1909 to 1914 and includes signatures from "F von Haast 13 January 1910"



Two pages from the May G Moore (nee Kinsey) autograph book, Manuscript Collection, Canterbury Museum: MS396.

the son of Julius von Haast (the first Director of Canterbury Museum), and "Wilfred M Bruce Terra Nova 1910", who was both the brother-in-law of Robert Falcon Scott and in charge of zoological work on board the *Terra Nova*. One page contains the autographs of the crew of the *Terra Nova* signed around the words "Southward bound with Capt. Scott & Co, BAE 1910".

Interestingly the final signature in the book was written fifteen months after May Moore's death in May 1954, and is that of Sir Edmund Hillary, who signed it "E P Hillary Canterbury Museum 10/9/55". Hillary's signature serves as a link between the heroic explorers of the early 1900s – Scott, Shackleton, Amundsen – and the beginnings of the scientific era five decades later. **I**

Understanding glacial history in the central Transantarctic Mountains

By Bryan Storey

In order to accurately predict the response of the Antarctic Ice Sheet to future climate change, we need a well-constrained understanding of its current behaviour, and of the way it has responded to past climate change.

Although we now have a relatively detailed understanding of the behaviour and recent change of some of the fast-flowing components of the Antarctic Ice Sheet, we know relatively little about the way in which the outlet glaciers that drain the East Antarctic Ice Sheet through the Transantarctic Mountains have behaved in the recent past, or about the processes that control their behaviour and response.

Consequently, a team of three University of Canterbury researchers – Bryan Storey and Master's student David Hood from Gateway Antarctica, with Geography Department PhD student Mette Riger-Kusk – spent the past field season in the Darwin–Hatherton glacier area (Antarctica New Zealand Event K056), to accurately evaluate the amount and rate of recent change of the outlet Darwin–Hatherton glacial system, which at 79° 55' S drains the East Antarctic Ice Sheet through the Transantarctic Mountains into the Ross Ice Shelf (See Map). The project is part of

Antarctica New Zealand's multidisciplinary Latitudinal Gradient Project (LGP). In fact, the field party worked alongside an LGP team of biologists (Event K024), led by Mark Stevens from Massey University, who was accompanied by Roman Türk from the University of Salzburg and PhD

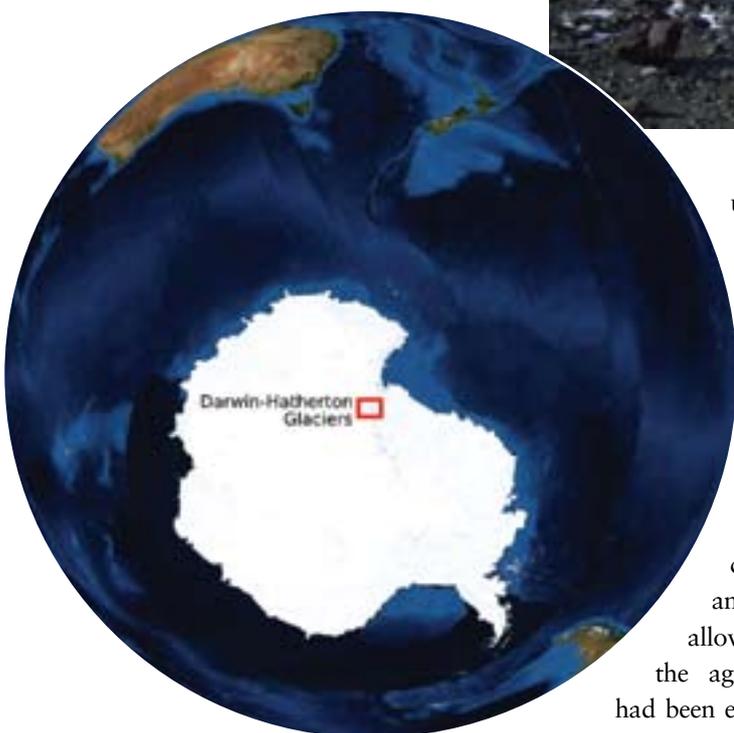
student Matthew Knox from the University of Waikato. The biologists were interested in documenting the fauna and flora and in investigating the links between colonization rate and landscape evolution. The group camped on the frozen surface of Lake Wellman on the margins of the Hatherton



Glacier, and visited Dusky Ridge, and Junction Spur at the confluence of the Darwin and Hatherton glaciers. They were ably assisted in the field by Ian Whiteley, field training instructor from Antarctica New Zealand.

The Darwin–Hatherton glacier system is a significant site for understanding change because it is one of the few locations in the central Transantarctic Mountains where well-preserved glacial moraines provide geomorphological evidence for the recent (Holocene) behaviour of the ice sheet. Five separate glacial ground moraine (drift) sequences (Hatherton, Britannia I, Britannia II, Danum and Isca) had been mapped in the 1980s by a US party. In fact, we were privileged to be in the field with Jim Bockheim, who had been part of that US party and who is currently working with another LGP project, Event K123, led by Jackie Aislabie (Landcare Research Ltd).

The landscape in the Lake Wellman area has been deeply dissected by ice and completely covered, up to a height of 800 metres above the current level of the ice, by ground moraine, a chaotic mixture of unsorted boulders ranging up to 5 metres in diameter, and by spectacular recessional moraine ridges



up to 10 metres high. Some of the boulders had been introduced from outside of the catchments. In order to date these deposits, we collected altitudinal transects of stable rounded boulders for cosmogenic isotopic analysis, which would allow us to determine the age that the boulders had been exhumed from the ice.

Surprisingly, the moraines were not well colonized, partly due to their youthful characteristics and to the lack of available water. Lichens were found sporadically throughout much of the area. However, invertebrates (mites, nematodes, tardigrades, rotifers) and algae were discovered in only a single locality at Junction Spur.

More research will be carried out in the area in the 2008/09 field season and the data and information collected over both seasons will be used to develop our understanding of how the Antarctic is responding to change. ❄

Wilkins Ice Shelf under threat: a sign of climate change

By Wolfgang Rack

Wilkins Ice Shelf, one of the larger ice shelves on the western coast of the Antarctic Peninsula, is in the process of significant retreat.

The ice shelf is located west of Alexander Island, and Google Earth users can easily “fly” to it by typing 70.5 S and 72.5 W into the internet browser.

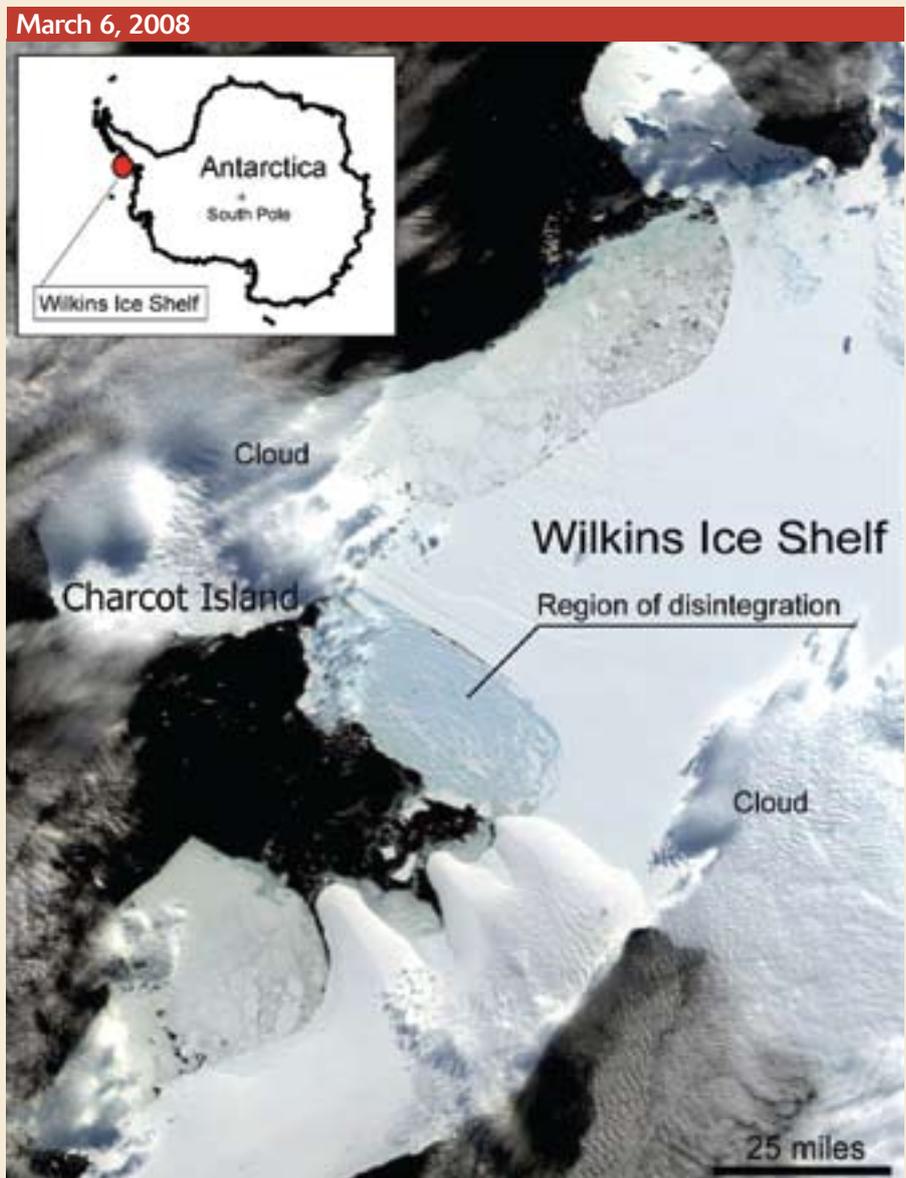
The rapid retreat was observed by polar orbiting satellites and from the air between 28 February and 8 March 2008. During this short period of time about 400 km² (155sq miles) of the ice shelf disintegrated into hundreds of small icebergs.

The total area of Wilkins Ice Shelf is about 13,500km² (5212 sq miles) which shows that so far only a small area is affected. The pattern and speed of iceberg calving, however, was very similar to the disintegration of the northern Larsen Ice Shelf on the eastern side of the Antarctic Peninsula, which happened in the 1990s and which culminated in the collapse of the Larsen B Ice Shelf in 2002.

This suggests that the causes and underlying glaciological mechanisms are similar. In this area, the mean annual air temperature increased by about 2.5 degrees Celsius over the past 50 years, which resulted in a strong increase in surface melt. Reasons for this significant regional warming and how this is related to global climate change is a matter of debate, but variations in the southern atmospheric oscillation and sea ice coverage are likely to play the dominant role in this process. The ice shelf has now almost lost its connection to Charcot Island, which acts as an important pinning point to stabilize its western part.

It is expected that the remaining narrow bridge will break during one of the next summers, which threatens the stability of the ice shelf as a whole. The complete collapse, similar to that

of Larsen B, might be the spectacular consequence. It is not known if or when that has happened before, but not likely during the past hundreds of years. ↯



Satellite image courtesy of National Snow and Ice Data Center / NASA



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Sir Edmund Hillary on a tractor bound for Cape Crozier

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