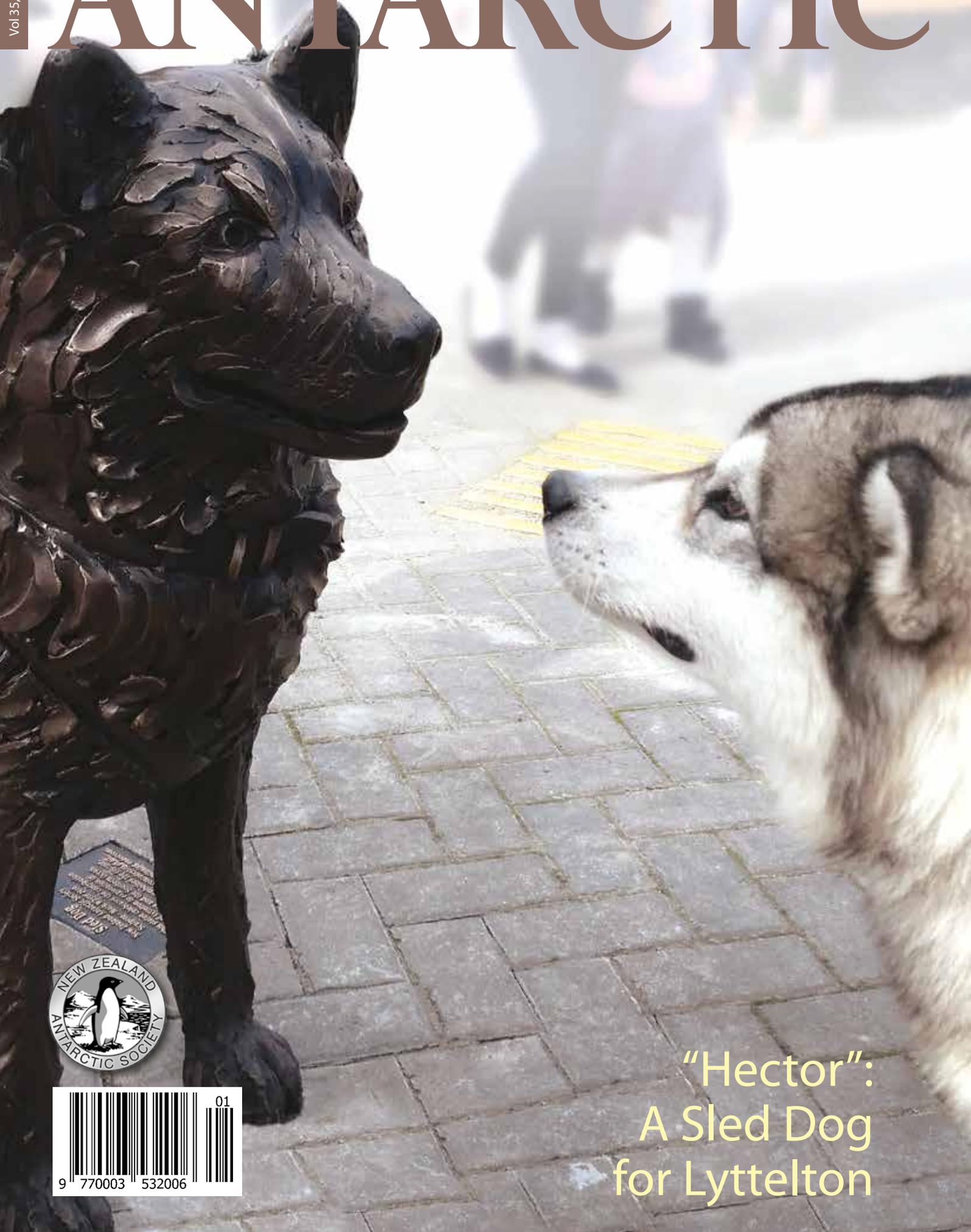


THE PUBLICATION OF THE NEW ZEALAND ANTARCTIC SOCIETY

# ANTARCTIC

Vol 35, No. 1, 2017



“Hector”:  
A Sled Dog  
for Lyttelton



# Contents

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## ANTARCTIC

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The deadlines for submissions to future issues are 1 May, 1 August, 1 November, and 1 February.

### PATRON OF THE NEW ZEALAND ANTARCTIC SOCIETY

Professor Peter Barrett, 2008

### NEW ZEALAND ANTARCTIC SOCIETY LIFE MEMBERS

The Society recognises with life membership those people who excel in furthering the aims and objectives of the Society or who have given outstanding service in Antarctica. They are elected by vote at the Annual General Meeting. The number of life members can be no more than 15 at any one time.

Current Life Members by the year elected:

1. Robin Ormerod (Wellington), 1996
2. Baden Norris (Canterbury), 2003
3. Randal Heke (Wellington), 2003
4. Arnold Heine (Wellington), 2006
5. Margaret Bradshaw (Canterbury), 2006
6. Ray Dibble (Wellington), 2008
7. Norman Hardie (Canterbury), 2008
8. Colin Monteath (Canterbury), 2014
9. John Parsloe (Canterbury), 2014
10. Graeme Claridge (Wellington), 2015
11. David Harrowfield (Oamaru), 2016
12. Robert Park (Christchurch), 2016

### ELECTED OFFICERS OF THE SOCIETY

National President: Mariska Wouters

South Island Vice-President: Margaret Bradshaw

North Island Vice-President: Linda Kestle

National Secretary: Myra Walton

National Treasurer: Lester Chaplow

Immediate Past-President: Jud Fretter

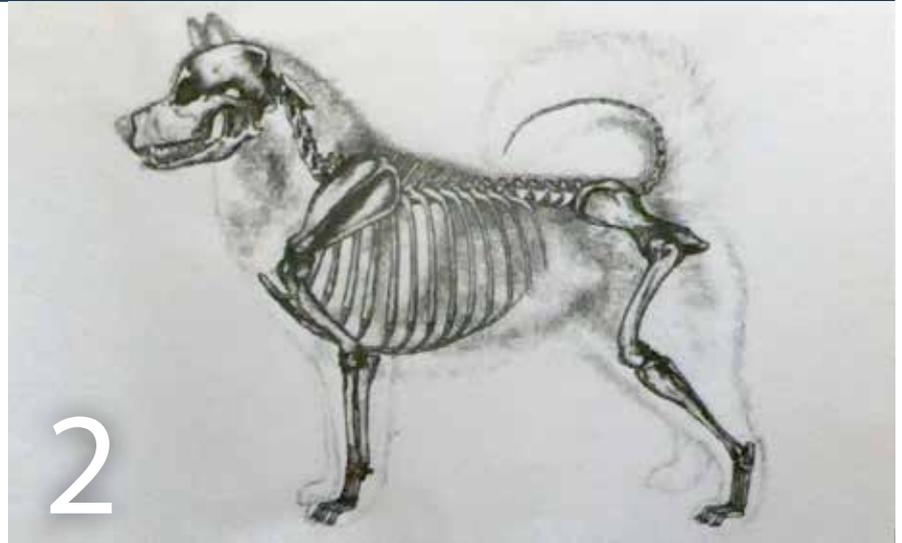
### BRANCH CHAIRS

Auckland: Linda Kestle

Canterbury: Shirley Russ

Wellington: Robin Falconer

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"Hector": A Sled Dog for Lyttelton	2
Meteorites and Mishaps in the Deep Field	5
Я&И@ЅЖ#! – A Russian Expletive	8
Tribute: William Charles Hopper	10
Tribute: James Harvey Lowery	11
Tribute: Graham Ernest White	12
"The Discovery"	Back Cover

## The End of the Heroic Era Conference 24 to 26 March 2017

Readers are reminded of the conference being held in Auckland, New Zealand, to mark the end of the Heroic Era. Further details were included in the last issue of *Antarctic* (December 2016), and can also be obtained from [auckland@antarctic.org.nz](mailto:auckland@antarctic.org.nz).

### DO WE HAVE YOUR CORRECT CONTACT DETAILS?

Are your membership and contact details up to date? Please contact our Membership Officer – [membership@antarctic.org.nz](mailto:membership@antarctic.org.nz) – if anything needs to be corrected. In particular, with the sharp rise in postage costs we would appreciate having your email address.



Cover photo: A local husky meets "Hector". Photo N. Basher.

Photo above: Preliminary sketch of "Hector". Photo courtesy of the Canterbury Sled Dog Project.

## From the Editor

The austral summer is a busy time for Antarctic research, and for many of our members, including two Society volunteers working with the Antarctic Heritage Trust to restore Hillary's TAE/IGY Hut at Scott Base. Scientists: Our readers would love to read of your work and research in future issues, so please, please submit an article or account of some aspect of your time in Antarctica. In this issue we note Richard McElrea's recent award of the Queen's Service Order for service as a coroner and to Antarctic heritage.

Meanwhile, in the last issue, we asked "What's in a Name?" and learned a little of "Hector". "Hector" is now completed and stands on a street corner in Lyttelton town. This issue, we learn a little more of the project to bring "Hector" to Lyttelton, in "Hector": *A Sled Dog for Lyttelton*. Then, we look back through the eyes of two Old Antarctic Explorers: Margaret Bradshaw tells of *Meteorites and Mishaps in the Deep Field*, and George Jones remembers a time at Vanda Station when *A Russian Expletive* was heard.

As a Society we recognise achievement and contribution to things Antarctic by the award of Life Membership. The number of Life Members is limited to 15 at any one time. A list of the current Life Members and the dates they were appointed is inside the front cover. In our last issue, we learned of the passing of three of our Life Members, and in this issue we include tributes for Bill Hopper, Graham White, and, belatedly, Jim Lowery.

Our back cover poem is the second from a small folio album of letterpress ephemera, and newspaper and magazine clippings pertaining to the Scott tragedy. The compiler was one J. W. Stones Esq. He closely followed Scott's career, and clipped all manner of newspaper items and magazine articles and pictures, and pasted them into a scrapbook of over 70 pages. He penned two poems about the Antarctic. The first, "The Discovery", is reprinted here. The second, and later poem (*In Memoriam. The Heroes of the Antarctic*), was included in the September 2016 issue of *Antarctic*.

Lester Chaplow

## From the President

On 20 January, we celebrated the 60th anniversary of the construction of Scott Base and New Zealand's permanent presence in Antarctica. The proposal for a New Zealand base in Antarctica was put to the New Zealand Government by the New Zealand Antarctic Society in 1953. We congratulate Antarctica New Zealand on their successful four-hour TEDxScottBase event facilitating a conversation about Antarctica, which attracted a global audience. Follow the QR link to the TEDxScottBase videos.



In January we sadly lost one of our long-standing members, Wing Commander (Retired) Bill Cranfield. Bill received a Polar Medal in 1958 for his contribution to the Trans-Antarctic Expedition, and he was awarded Life Membership of the Society in 2003. We will remember you, Bill.

Our branches are busy preparing another year of regional events, and we look forward to seeing you at these. We hope to launch our new website at this year's midwinter events.

Mariska Wouters

## Richard McElrea

The Society extends its congratulations to Richard McElrea on his award to be a Companion of the Queen's Service Order. The citation accompanying his award is as follows:

*To be a Companion of the Queen's Service Order:*

### **MCELREA, Mr Richard Gerald**

For services as a coroner and to Antarctic heritage

Mr Richard McElrea was a coroner for more than 20 years and contributed to the development of the New Zealand Coronial Service.

Mr McElrea served as a Coroner at Christchurch for 21 years and was instrumental in establishing the Coroners' Council in 1998, working to form relationships with Australian and English Coroners. He served as the Council's Chair until it was disbanded with the establishment of a Chief Coroner under the Coroners' Act 2006. He was instrumental in promoting the passage of the Act through Parliament and led the council in its submissions to the Select Committee. He also chaired the committee of the Asia Pacific Coroners' Society which included coroners from a number of Pacific countries. He presided over many significant inquest hearings and was passionate about the need for independent investigations of air crashes and ship sinking. Many of his findings were of national importance, including transport-related deaths and deaths in prisons. Beyond his work as a coroner, he was the Chair of the Antarctic Heritage Trust, responsible for the care of the original explorer bases in the Ross Sea region. Mr McElrea has been involved with the production of several books and papers on Antarctic exploration, as co-author, co-publisher, associate editor and researcher.



# “Hector”: A Sled Dog for Lyttelton

*By Sue Stubenvoll, Manager, Canterbury Sled Dog Project*

The port of Lyttelton lies in the Roaring Forties. It was discovered by Māori, developed by whalers and settled by adventurers. Its destruction twice by fire and once by earthquakes has bred grit, empathy, and resourcefulness. Residents include a female Master Pilot, a one-armed Māori poet and a musician who sculpts stone like melodies. Steep streets lead up toward the rim of its extinct volcano. Visitors are welcome, although they, like most residents, are unaware of the port’s strong Antarctic links. Children rarely ask about Antarctic ships in port. A local character once asked, “Why should I be interested in the Antarctic?” When he learnt about neutrino tracking his eyes and mind lit up. He wanted to know more.

With Baden Norris a project was conceived in 2011 to erect a bronze sled dog in Lyttelton, modelled on the last dogs to pass through the port from Scott Base. Its aims were to celebrate Canterbury’s links with the Antarctic and inspire everyone to explore the Antarctic’s history and scientific puzzles. The concept was tested with members of the Lyttelton Historical Museum Society and the Lyttelton/Mt Herbert Community Board in 2012. Both were enthusiastically supportive. With their endorsement, the Sled Dog Project was officially launched by the Canterbury branch of the

New Zealand Antarctic Society in April 2013.

The branch agreed its scope, objectives, risk management, and finances, while a local advisory committee, representing Lyttelton’s community, was formed to guide its four sub-projects. A site for the sled dog, on the main street, between the Library and Albion Square, was suggested by the Community Board and selected by the local advisory committee from four proposed by Christchurch City staff, who also provided a liaison officer to guide us through the official process. Unfortunately, eighteen months into the project we discovered that City Council had lost information and advised the wrong process, delaying the project until it was unanimously approved by City Councillors on 10 September 2015.

Local sculptor, Mark Whyte, was selected by the advisory committee from the three outstanding artists asked to respond to a formal brief. It was an inspired choice. Overworked by stone repairs in the city, Mark embraced the idea of the dog and was a pleasure to work with throughout the project.

Some 20 dogs were welcomed, admired, measured, and photographed, including a skeletal dog and “Deek” at Canterbury Museum. A “static” dog needs to be 15 per cent bigger than a live dog, to compensate for the space

that a living dog would appear to occupy by its movement. Local sled dog clubs taught us the difference between malamutes and huskies and we watched them race on cool Sunday mornings in Cheyney’s Forest. Bill Cranfield, Antarctica New Zealand, and Canterbury Museum contributed historic photos of dogs, harnesses, and sledges. The term “sled dog” was chosen over the historic “sledge dog” to reflect our focus on current and future generations.

The sculpting process is exciting. First Mark selected photos supporting the brief: “‘Hector’: An adult dog in full winter coat, excited and ready to go!” He made drawings of the front and side views of “Hector”, superimposed with a drawing of the skeleton from Canterbury Museum. From these measurements a core was constructed of steel rod on a slight slope like the site, and the stance was approved by Society members. Steel mesh was used to develop the musculature frame of the dog. On this framework a miracle was wrought. Individual leaves of clay, each about 12 centimetres long, were layered onto the musculature frame. As Mark explained, “It’s more like a watercolour than an oil painting, as each leaf affects the layers above,” giving movement and fluidity to the coat. The dog grew more and more lifelike.

**Photo above:** Completed clay sculpture.

Near the end of the process a few details remained unclear; details not covered by the photos, such as the tongue, and hair round the backside. As a surprise (and to Mark's delight) a malamute "Desna" arrived, bringing details and personality at just the right time. Desna is very easy-going, but malamutes often fight dogs intent on their own business. Like anyone

working towards a goal, Desna has a scar on her nose – a mark of her persistence. We decided that our dog needed a scar and "Hector's" scar represents the pain endured to achieve something worthwhile.

The week before unveiling the site was marked as clear of underground services and was blessed in the presence of Mark and a Society member. Early next morning

the clay sculpture was loaded into a van, with Mark and driver bound for Auckland and facing a rough crossing. Their safe arrival calmed our nerves. The foundry used the lost wax method to create positive and negative moulds; it cast the bronze in seven pieces that were joined then "fettled" by Mark to merge the seams and then coated and finished to a dull patina. The bronze and Mark returned to Lyttelton two days before unveiling! The first day we lifted paving tiles, dug a metre-deep hole, laid steel framing, and mixed and poured concrete, leaving it overnight to cure. On the last day we aligned the four steel rods protruding from "Hector's" paws, drilled the concrete, added adhesive, lowered the four rods into the holes, re-laid the tiles with an inlaid bronze plaque, and cleaned the site. "Hector" stood guarded and covered overnight awaiting his unveiling.

"Sled Dog" was unveiled by Her Worship the Mayor, assisted by the winner of the naming competition, on 1 October 2016 in the presence of Lytteltonians, Antarcticans, and sled dogs. The sun shone, blessings were given by tangata whenua and the Roman Catholic Church, children sat on it, and the visiting sled dogs accepted it as a large comrade – albeit one with an unusual scent. Over Christmas, local children decorated "Hector" with tinsel. His ears are already yellowing and, if you look carefully, you will find his name on his collar and a faint scar on his nose.

Over the course of the four-part project, donations, interest, and support from local businesses, Society members, and Antarctic and philanthropic organisations raised over \$30,000 of the \$52,000 needed. The three sub-projects were a competition,



Muscular shape over frame.



Mark Whyte, with sketches and initial frame.



Sculpture showing jointed casts.



Fettled sculpture, showing patina.



for local school children facing earthquake-related upheaval, to name the dog; an illustrated brochure, *Lyttelton Antarctic Port*, developed with the Information Centre to introduce visitors to our Antarctic past and continuing links; and an illustrated children's book

appealing to all ages, written by renowned local poet, Ben Brown, and illustrated by wildlife artist Trish Bowles, both of whom were chosen by the local committee. All four parts develop community understanding, while book sales provide continuing income and

awareness. Free copies of the book were distributed to every school in Canterbury, to Otago libraries, and to Antarctic ships, and they are sold in five countries. As with Mark, it was a pleasure to work with Ben, Trish, the Information Centre, and the local advisory group. <sup>4</sup>

**Photo above:** Unveiling "Hector". (L-R) Kopa Lee, Rapaki Marae; Fr Dan Doyle, Antarctic Chaplain (RC); Hannah, who named "Hector"; and Her Worship, Mayor Lianne Dalziel.  
*Photographer: N. Basher.*

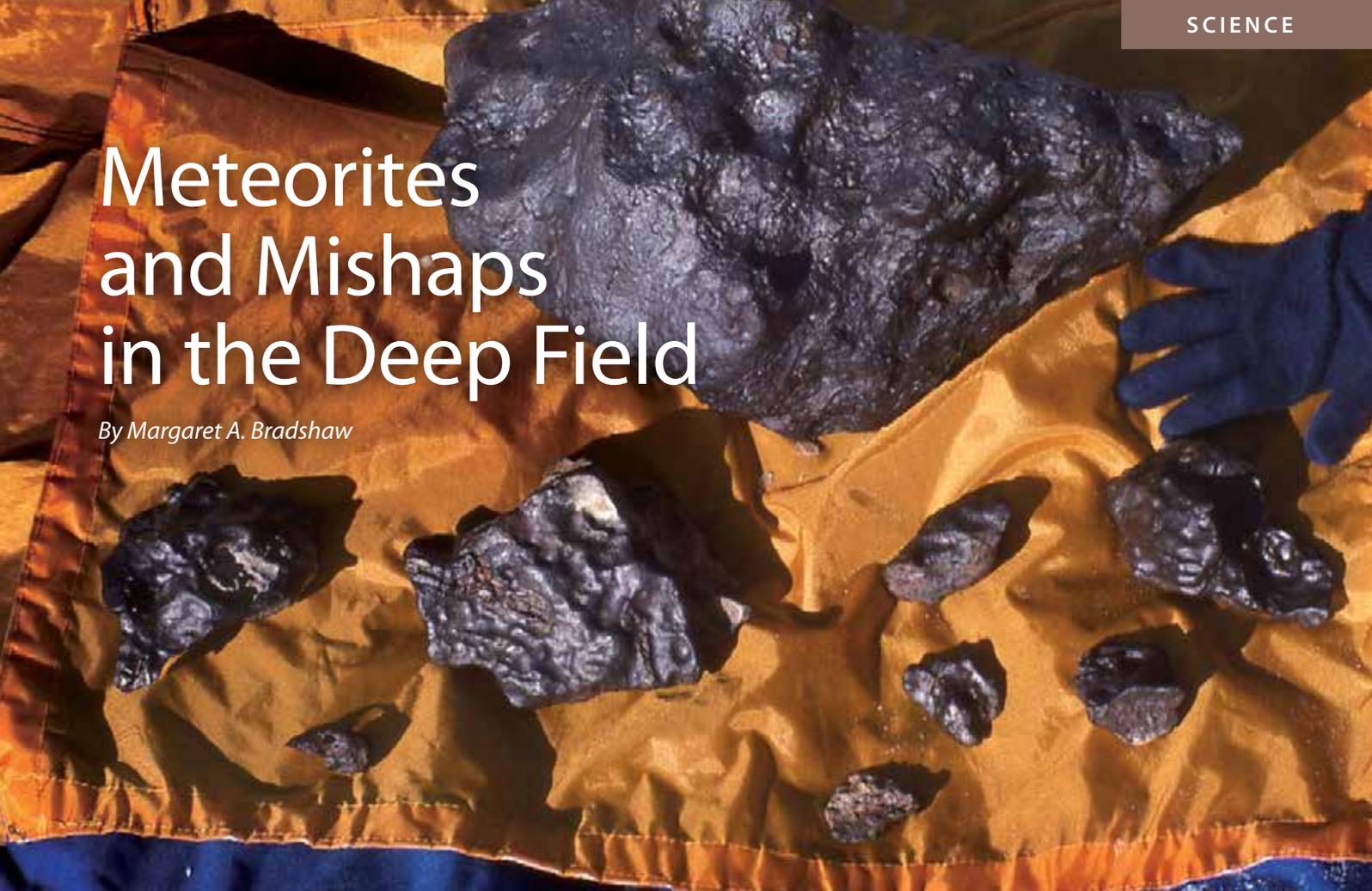
**Photo right:** Plaque set into the paving beside "Hector".

*All photos courtesy of the Canterbury Sled Dog Project*



# Meteorites and Mishaps in the Deep Field

By Margaret A. Bradshaw



In 1988, a four-person geological field party from Canterbury Museum was working in the Darwin and Cook Mountains, and had ventured as far south as the Britannia Range. Towards the end of the trip the party sledged down the Darwin Glacier and up the icy Hatherton Glacier to work on Derrick Peak.

The party comprised myself from Canterbury Museum as leader, Fraka Harmsen, a New Zealand graduate now on the staff at California State University, Chico, Martin Kirkbride, a PhD student at the University of Canterbury now at the University of Dundee, and Ray Waters from the Department of Conservation as our mountaineer/safety person. The party was supported by Antarctic Division, DSIR (now Antarctica New Zealand), and we had been in the field for over a month.

Over the two months we had had the normal number of mishaps that always happen to isolated but self-reliant deep field parties. The first was on the put-in flight. The plane was heavy, laden to its maximum of 15,500 lbs because there were two field parties being flown in, the other one from Victoria University. The American pilots refused to land the Hercules plane at the preferred site close to the Darwin Mountains where they had successfully landed in the seventies, and instead chose the southern side of the Darwin Glacier. Usually a ski-equipped Hercules does a trial run, where the skis are touched down briefly before the plane powers

back up, with a backward glance to see whether any crevasse bridges had been broken. We waited for the bouncy exploratory ski-run to finish and for the plane to return to the skies, but suddenly the “brakes” were being applied heavily, and after a jolting passage that seemed to go on for a very long time, we stopped. The pilot asked us Kiwis to take the toboggans and drive back along the ski-run to check that the run was safe. The pilot explained that he hadn’t been able to climb back into the skies because something had slowed the plane, and when he saw the Darwin icefall looming close ahead, he decided to stop. The toboggan reconnaissance showed that the plane had indeed broken through a metre-wide crevasse bridge, and the plane would need to take off well before this was reached. Fortunately, after what looked like a very slow lumbering run, it took off safely, leaving the two parties to go their separate ways and get on with their work.

After working in the local mountains we travelled down the Darwin Glacier and turned south up the Hatherton Glacier as far as the Britannia Range, where we were planning to continue our study of Beacon rocks by measuring a section up the side of Derrick Peak. We knew our footsteps would not be the first on the mountain, as a four-man New Zealand party from the University of Waikato had worked on glacial deposits in the area during the 1978–79 season. They had had

**Photo above:** The collected meteorites. The largest at top weighed 63 kg. All are now stored in the Canterbury Museum, Christchurch.

the good fortune to discover six iron meteorites high up on Derrick Peak and had collected specimens with a total weight of 80 kg. They notified a US–Japanese meteorite collecting team who they knew would be at Darwin Base-camp later that season, and a further visit by that team yielded 10 more specimens, including one that was a massive 138 kg in weight.

I told our team about these early meteorite finds on the mountain, and Ray was particularly keen to look for further specimens. “How will I know it’s a meteorite and not an ordinary dark rock?” he asked me. “If it’s unusually heavy for its size, it will be a meteorite,” I answered, for iron meteorites are solid and dense. So while we climbed the mountain on 10 December, measuring and describing the rocks, Ray roamed here and there, and before long he let out a joyful shout when he found his first small brown meteorite specimen. A total of nine iron meteorites were found over the next few days, most of them partially buried in soil, but some lying loose on the rock. One was very large and very heavy (we later discovered it weighed 63 kg).

The Waikato party had earlier decided that the meteorites were part of a larger body that had broken up as it entered the earth’s atmosphere. The chemical composition of both the 1978–9 and 1988 specimens was the same, indicating they all belonged to the same meteorite swarm that had landed on the north ridge of Derrick Peak. A few days later we found another identical meteorite fragment 5 km further south in the Onnum Valley, showing that the swarm had fallen over an even larger area.

Meteorites are not uncommon in Antarctica, but most are found associated with the ice cap, onto which they have been falling for thousands of years. The meteorites become frozen into the ice as they become buried with fresh snow. This preserves them perfectly as if they were in a freezer. The ice cap spreads outwards under its own weight, and, where the ice becomes blocked near mountains, the ice slows

or becomes stagnant, and ablates. Over thousands of years, meteorites locked within the ice melt out, resulting in local concentrations of remarkably fresh specimens. In contrast, meteorite falls onto exposed mountains, such as our finds, are rare, and usually show some degree of weathering.

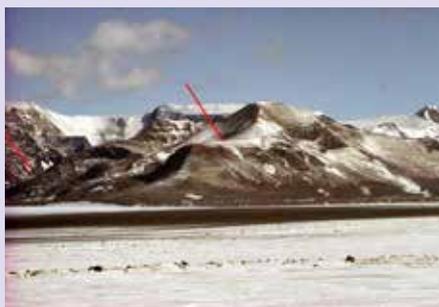
The small specimens were not a problem to collect, but the very large specimen created difficulties. It was found by Ray on 11 December on a high ledge about 1000 m up the mountain. We marked the specimen with a flag and continued on to the top of the mountain, intending to collect the specimen on the way down when we returned to the meteorite. Martin, as the youngest, tried to carry it in an empty rucksack, but he could barely walk down the slope. His pack started to disintegrate, and he began to fear for the health of his back. We were a long way from camp and it was late in the day, so we left the meteorite on the mountain looking glossy dark-grey and alien. We got back to camp at 1.00 in the morning, still in broad daylight.

We carried on with our geology further up the valley, but the next day, over the radio schedule (sked), we asked Base Leader Dave Crerar if there was any chance of US helicopter assistance getting the meteorite off the mountain. A day later, deputy leader John Alexander advised that US help might be slow to happen and that it would be better if we could get it down ourselves. Knowing how the weather could hamper lift-outs late in the season and how easy things can get lost under a winter of snow, we decided to take his advice and retrieve the meteorite ourselves. With Ray’s considerable help we created a special mini-sledge from a spare wooden drum cradle (used to hold fuel drums on a normal sledge) and parts of a broken sledge runner that could be cut to make two short skis.

On 17 December, when the weather was too bad for work, we left camp at 9.30 a.m. and tobogganed round to the bottom of the Derrick Peak ridge. We had an emergency tent and sleeping bags with us, as well as



The successful final pick-up. The red line points to the slope down which the sledge was lowered. Left to right: Ray Waters, Fraka Harmsen, Margaret Bradshaw, Martin Kirkbride.



Derrick Peak from the Hatherton Glacier. The site of eight of the meteorites is indicated by the central red line, with the source of a further one from the valley marked by the left red line.



The assembled sledge on Derrick Peak with Ray squinting against the blowing snow, and Fraka and Martin cowering against the wind. The wide Hatherton Glacier moraine is far below.



Man-hauling the meteorites up and down the moraine at the bottom of Derrick Peak was hard work.

*All photos courtesy of Margaret Bradshaw.*

a radio and spare food in case the weather got worse. We marked our route across the McCraw Glacier with flags, and where the ice met the Hatherton Glacier we dropped down the slope to the edge of the moraine. With the mini-sledge in pieces in our rucksacks it was now time to cross the lumpy moraine to the bottom of the mountain. The temperature was  $-8^{\circ}\text{C}$  and there was a nasty wind from the south with big willywaws coming off the ridge high above as we steadily climbed up the scree slope. But even so, we were not prepared for the gusty blizzard that raged over the rocks where we had left the meteorite. Packs and people were blown everywhere as we struggled to put the sledge together. This had to be done with bare hands using leather lashing, wire, and tacks, with Ray doing most of the work. Our hands were getting so cold we were forced to put the pieces back into the packs and move part-way down the slope below the ridge. It was still windy here, but a little easier. Ray finished by lashing a piece of wood across the ski tips and, using his naval experience, he secured hauling ropes at the four corners of the sledge. We then returned to the ridge to load the meteorite into the cradle, pad it for protection with bubble cloth, and lash it securely. Then with rucksacks protecting our shoulders and one person to each rope, we started to lower the sledge down the slope. The time was 5.00 in the afternoon. The work was not easy and we were constantly falling down. It was a long way down and we all began to feel the strain on our arms. The weather began closing in. We aimed for a long frozen lake in the moraine at the bottom of the slope, and we arrived there at 7.40 p.m. It was now snowing and the light was bad. We left the mini-sledge and meteorite, and crossed the moraine to find the toboggans. Our tracks across the McCraw Glacier were no longer visible and most of our flags had blown over. I was driving the lead toboggan, and the light was so flat that, according to my diary, I nearly drove through our snow loo, which was virtually invisible in the white-out. A well-earned meal followed and then bed by 2.30 a.m.

We had to wait through two days of bad weather before we had a chance to retrieve the meteorite from the moraine. After crossing the McCraw Glacier we encountered a ground blizzard coming down the Hatherton Glacier, with masses of blowing snow into which we had to drive. The red flag we had left marking the walk into the moraine was still standing, and when we reached the meteorite at the bottom of the hill our lake had been swept clean of snow and the sledge was clearly visible. Martin attached hauling ropes onto the front of the sledge, and, with a rope clipped into the back of each of our safety harnesses, we dragged the sledge up and down over the hummocky moraine back to the toboggans. We had done it, and we were mighty pleased with ourselves and took the trouble to record the moment on film.

That same day we took advantage of the katabatic wind to run down the Hatherton Glacier, then back up the Darwin Glacier to our put-in point. The Victoria party had returned earlier to be pulled out, but the event had been aborted when the Hercules, trying a safer site, found yet another crevasse in the middle of the ski drag. After flying around looking at other options, the pilots gave up and returned to McMurdo to consider what to do with us. That evening's sked intimated that we could be in the field for a further 10 days, which gave us more time to look at rocks.

In the end they picked us up at Roadend Nunatak, 27 km further down the Darwin Glacier, because this had been used for the 1978–9 Darwin Base Camp. The problem was that the two huge pallets on which our gear had been flown in were still on the Upper Darwin Glacier, and, at 1000 lbs each, they were heavy. Despite American advice to jettison them, we didn't want to create pollution. So we devised a way in which we hooked one pallet onto the tow bar of each toboggan. We then tied a string of two sledges onto a metal loop at the back of each pallet so that they were towed behind it. With a person standing on the final "dog sledge" for control, travelling the 27 km down the glacier worked remarkably well and took only three hours. We were finally pulled out on 4 January 1989.

The 63 kg meteorite went on display at Canterbury Museum, and the mini-sledge went into storage to be occasionally displayed. We wrote a paper about the new meteorites, and the total weight of the fragmented Derrick Peak meteorite rose to 392 kg. The date that the meteorite fell to earth is uncertain, as the specimens are weathered and had lain on soil for some time, but the consensus is that it may have been between 190,000 and 125,000 years ago. †

# Я&И@\\$Ж# ! – A Russian Expletive

By George Jones, OAE,  
Scott Base 1964.

It was spring 1965, very early September, when there was cause for our leader to utter a Russian expletive. A few days earlier we had flown by chopper to Lake Vanda in the Dry Valleys, over the remnant glacier on the coast and then down onto the frozen lake. We had a couple of tons of gear and keen to start our adventure. The chopper crew said they would be back in nine days.

Minutes before I left Scott Base I had learned that Dave Cook, a lab technician from McMurdo, was to have his twenty-first birthday while we were there, so I had grabbed a couple of bottles of Te Kauwhata wine, entirely forgetting that they would freeze. John Dittmer, the McMurdo dentist, was hoping that his skills would not be required while he was away from McMurdo. I had organised others to take over my responsibilities so would not be needed in the lab at Scott Base. The three of us had no field experience, so it was all new to us, and we looked to our leader for guidance. Igor Zotikov, glaciologist and thermo-physicist from Moscow, was an exchange scientist at McMurdo. He had wintered over at Mirny and Vostok, and was very experienced in cold conditions. We knew him well, as he had taught us the Russian language over the winter.

After arriving at Lake Vanda we looked around before it got dark. Being there in the spring, we had a day/night sequence with a slow twilight. It was dead calm and  $-41^{\circ}\text{C}$ , and there was solid wind-pocked ice underfoot. The lake is 5 by 1 kilometres, in a long valley coming down from the Plateau, and from it there are clear views of the mountains on the sides.

First we set up two tents and prepared a meal. Then to bed, in my case in two “Everest” sleeping bags, as well as in full woollen underwear and socks. I closed the sleeping bags to leave only a small breathing hole. In the morning I had to break out through the thick layer of frost round that hole and emerge into the cold air. Attempts to start the “South Wind” personnel heater were futile. The two car batteries gave only 8 volts in series or parallel under load, not enough to start the machine. The heat comes from petrol, and the heater has a strong fan to blow the air through. We tried to light a half cup of petrol but failed. We finally got it going by

starting up the only appliance I had brought with me: a “Fyrside” heater with a hemisphere mesh, fueled by kerosene. It started first shot with a match to the wick. We warmed up the 4-stroke electric generator inside the tent, took it outside quickly and started it with the pull-cord. Its lubricating oil was like treacle, highly viscous, and we did not have enough strength to pull the cord until the generator was warmed up. Then we plugged in the battery charger, connected it to the batteries and got the South Wind going, with one tube of warm air fed into its input, and the other heating up the two-stroke ice drill. So it took a couple of hours to start work. I wished I had taken a hand-operated ice drill. It would have been easier, and would have got us warmer.

There was only 12 feet of ice to drill through to get to liquid water, and the drilling did not take long. Igor had several instruments, one being a thermopile to measure temperature gradients. We also had thermometers, a conductivity meter, and a bottom-sampling probe. So we measured the temperature profile and salinity of the 200-foot ( $\sim 61\text{m}$ ) water column, and took a sample of the bottom mud. The temperature increased from  $0^{\circ}\text{C}$  at the ice-water surface to a maximum at the bottom of  $+25^{\circ}\text{C}$ . The salinity increased in step with the temperature. There was a large depth, about 60 feet ( $\sim 18\text{m}$ ), that did not increase in temperature or salinity. Igor had wanted to look at the lake after the sunless winter, hence the spring date. He was convinced that the temperature rise was the result of radiation from the sun getting through the ice, which had an albedo of about 0.5, and the energy being absorbed by the black mud at the bottom. The water was density-weighted by salt, with ice on top, so there was no water movement and no convection, and conduction would be very slow. The other theory was that the lake was heated by geothermal vents.

Photo above: Lake Vanda camp.



Igor Zotikov.

The air temperature dropped about one degree per day, in still-calm conditions, until we reached  $-46^{\circ}\text{C}$ . We celebrated Dave's birthday in style. Igor had arranged a cake, and had somehow acquired a bottle of Canadian Club rye whisky. It was too cold to drink, but we heated it in a pot – carefully, as we were certainly aware of fire safety, with our naked flames, petrol, and whisky. I can now reveal the freezing point of Canadian Club: it was  $-41^{\circ}\text{C}$  when we noticed tiny flecks of ice in the bottle. The whisky went down well, as did my two bottles of wine, which had been carefully decanted off the broken glass after being heated in a pot. So we took no notice of the wine advice: drink at room temperature.

We had brought three flags with us and I took a photo of them. There was no wind, so I had to tie a string on the top corner of each to show the flags. I have always remembered this point whenever I see the picture of the flag on the moon when the US went there.

Then came the biggest change in the weather I have ever experienced. The temperature changed from  $-46$  to  $-6^{\circ}\text{C}$  in 20 minutes, and the wind started to blow very hard. Our anemometer went to 60 mph, and kept hitting the stops, so the average was higher. We rushed to tie down the tents with heavy gear on the windward side. We managed



John Dittmer trying to raise McMurdo radio.

okay, but I woke in the night to Igor outside moving stuff around, as we were still in danger of losing our tents.

One day John and Dave were not needed and Igor agreed for them to go for a walk up the nearest mountain beside the lake. He gave each a torch and told them that if they got into trouble after dark then they were to flash the light and we would look for them. Igor and I then worked all day on lake measurements. By the time we had our meal the others had still not turned up. It got dark. We then saw flashing lights, but convinced ourselves that they were stars above the mountain or moonlight on snow patches. Igor took the two-burner lamp about 20 metres away from the camp, and kept staring into the hill. Time went by, way past 10 p.m. There was still no sign of the two. Then came a most explosive word in Igor's own language. He turned to me and said in English, "Prostitute, only worse!!" It was the most dramatic moment of my life. The situation was serious. Remember that this was during the Cold War. If Igor had lost two Americans... But about half an hour later they did turn up. What had happened was that the mountain was far further than they had thought and they decided to walk without torches after dark in case the torch light was seen as flashing. They were okay, but had had to negotiate the rocky



Dave Cook.

terrain carefully to be safe. They had been away for fifteen hours, with a first-quarter moon their only illumination after dark.

During our time at Lake Vanda we had not been able to raise McMurdo by radio, probably because we were in the radio shadow of the glacier, and we were running though the drum of fuel faster than we should have. So Igor decided to prioritise our food, leaving till last any that did not require cooking. On schedule after nine days the chopper came for us, and we heaved a sigh of relief, as we had nearly run out of the all-important fuel. So we did not get to eat the chocolate, the last of the food. Them's the breaks! 🐻



The author drilling through the ice.

All photographs courtesy of George Jones.

# Tribute: William Charles Hopper

By Robin Ormerod



Bill Hopper. © *Antarctica New Zealand Pictorial Collection*, 24175, 1982.

Former branch chairman, National President, and Life Member of the NZAS, Squadron Leader William Charles Hopper – Bill to most of us – died in Wellington on 4 October 2016, aged 89.

Bill was educated at Wellington Boys' College and it is likely that his interest in the Antarctic was inspired by his English teacher Les Quartermain, a foundation member and subsequent office-holder of the Society.

As a journalist and photographer with *The Dominion* in Wellington, Bill first went south in 1958 to collect material for feature articles. In 1966 he became Recruitment Officer for the RNZAF and had five subsequent trips to the Ice. After retirement from the RNZAF, he worked for New Zealand Railways and then the Red Cross, before taking on the editorship of the RSA journal.

It is believed that Bill joined

the Society in 1958. He went on to become a long-serving committee member. From 1961 to 1964 he was branch publicity officer, and membership soared to a massive 223. He chaired Wellington Branch from 1966 to 1967 and again from 1979 to 1981. In 1983 he became National President, and he was made a Life member in 2004.

With his long experience on the committee Bill thought “outside the square” when he became Branch Chairman, restoring and revitalizing branch activities.

Midwinter was often celebrated with a bunch of committee members parading in full polar kit down Lambton Quay, and a display of Antarctic memorabilia in the old glass cabinets of the public library. Our midwinter cocktail function became more sophisticated, with better outreach to the diplomats representing the Treaty Nations, quality wine, and, with encouragement from food-writer wife Ngaire, much improved catering. They resumed control after an embarrassing lapse one year when another committee member decided they could handle it. As wine casks were unfamiliar, the bladders were removed and laid out carefully on the white table cloths. Catering was forgotten, and all that was available in Wellington by 7.30 p.m. were Kentucky fried roast potatoes.

Bill took greater control of the annual church service and introduced Air Cadets to the delicate art of carrying the flags of the Treaty Nations through the cathedral and up to the altar. As his secretary, I breathed a sigh of relief when they left the building without breaking

the glass above the main doors. It had been our job to set it all up, and on one occasion we were called back by a bossy verger. “Where do you two think you are going? Nobody is going to carry flags into the cathedral tied to poles with knots like that.” We slunk back and retied the lot for inspection before retiring for a beer at a local pub.

In 1980 he battled for Society representation on the Historic Huts Management Committee, and from 1984 to 1995 he provided considerable support to me as editor of *Antarctic*. He enthusiastically supported the restoration of the Byrd Memorial in the early 1990s, and was largely instrumental in the acquisition of a restored sledging flag and its presentation to Wellington Cathedral of St Paul.

During his presidency, in 1983, the Society celebrated its 50th anniversary. Bill helped organise the publication of Neville Peat's *Looking South: New Zealand Antarctic Society's First Fifty Years 1933–1983*. In his introduction he wrote:

*The Society was born out of the imaginative minds of people like Arthur Leigh Hunt, Ritchie Simmers, Robert Falla, Leslie Quartermain, and Harold Griffiths. They had one thing in common – an all-embracing love of the mystery and adventure of the vast ice bound wastes of Antarctic and an interest in unlocking its scientific secrets. The pioneers have been followed by many others who, 50 years later, still contribute to that original idea.*

Without doubt, Bill was one of the others. †

# Tribute: James Harvey Lowery

By Arnold and Jan Heine, Simon Nathan, and Peter Barrett

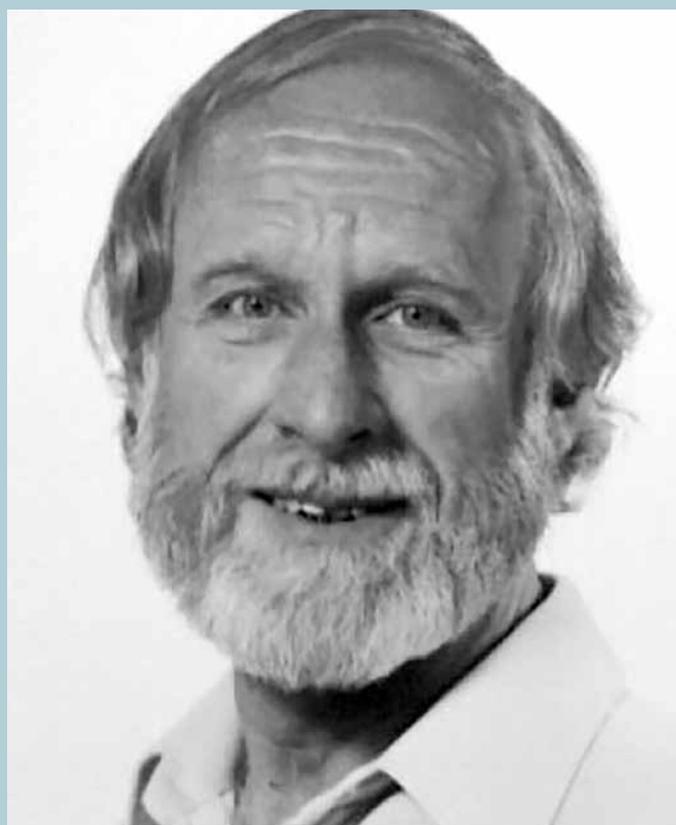
James, or Jim as he was better known, became an Antarctic legend following an accident that befell a group led by Bernie Gunn that was driving a Sno-Cat (tracked vehicle) on the western margin of the Ross Ice Shelf, south of the Barne Glacier. About noon on Thursday 19 November 1959, the Sno-Cat broke into a 30-metre-deep crevasse. The driver, Tom Couzens, died, but both Bernie and Jim survived in the crevasse until they were rescued 27 hours later. However, Jim was trapped by his legs and they became severely frostbitten, and as a consequence both lower legs had to be amputated.

The next few years involved a huge effort in rehabilitation. He was fitted with artificial legs, which gave him mobility (with the aid of his car) but were also a constant source of pain. Jim was determined to be independent, though this came at considerable cost to his health. By 1963 he was teaching science and maths at John McGlashan College in Dunedin, after which he returned to the University of Otago where, in 1967, he completed an MSc degree in petrology, concentrating on the mineralogy of ores from Otago and Nelson.

Jim then took a petrology position with the New Zealand Geological Survey (NZGS) in Wellington, where he was to stay for the next 20 years. Following up the work done for his thesis, Jim specialised in the mineralogy of opaque and ore-bearing minerals. Much of the work in his early years is recorded in unpublished reports and letters to geologists who submitted samples for mapping and project work.

He also returned to Antarctica in 1972–73 to study the minerals in the basement rocks of Wright Valley. *Antarctic* (December 1972) reported that “he is believed to be the first person with artificial legs to do rugged work on the ice. Mr Lowery, who is 35, is so fit, fast, and sure of his footing that he sometimes leaves able-bodied mountaineers behind.”

After the sudden rise in the price of oil in the early 1970s, and a renewed search for energy, the then Director of NZGS, Pat Suggate, persuaded Jim to switch his interest to studying coal petrography and the measurement of vitrinite reflectance, useful for gauging petroleum maturity. From 1979 to 1988 Jim contributed



Jim Lowery. Photo courtesy of Peter Barrett.

information on vitrinite reflectance to a series of NZGS reports on oil-prospecting drill holes. Toward the end of this period there was a major reorganisation of government science, with many redundancies. Jim was one of those who lost their job.

About this time, Jim got involved in an activity that not many Antarctic Society members would be aware of: he joined Disabled Skiing Wellington Inc. He was happy being so mobile with a pair of boards attached to his wooden legs, giving him speed too. Being a double below-knee amputee, he did not need outriggers. He did try them out, but they gave him no advantage over the usual ski sticks.

Jim was Club Treasurer for some years and kept the meagre finances in good shape, despite some big outgoings for instruction and trips to Cardrona (which is a much easier ski field for people with disabilities), and for the instructors too. He mentored a number of the young people in the group, and got them to the Committee meetings and social events in his trusty old car. He was certainly well thought of and really respected.

In 1982 the New Zealand Antarctic Society made him a Life Member in recognition of his inspiring perseverance and his generous spirit. †

**James Harvey Lowery: Born 13 October 1932, Milton, Otago; died 27 June 2008, York Bay, Wellington.**

# Tribute: Graham Ernest White

By Brett Fotheringham and Myra Walton

Graham White grew up in West Auckland, where he was a foundation pupil at Kelston Boys and spent much of his early youth with his mates at the nearby Titirangi Golf Course. He went on to reach a 3 handicap in this much-loved sport. During this period he also developed a keen interest in the Antarctic and Sir Ed was his childhood hero. He considered it a special honour to represent the Society at the Scott Base 50th Jubilee celebrations in January 2007 alongside Sir Ed.

Graham started his working life with the Ministry of Works on some of the major power projects in the Central North Island, and he followed this with 10 years at the New Zealand Steel refinery at Glenbrook. He applied for the role of Deputy Officer in Charge at Scott Base and was selected to undertake the role for the 1987–88 season. This was followed with a similar position, as Base Manager, in 1994–95. Graham considered these roles and experiences to have been among the greatest of his life. On return from his first Antarctic trip he took a job with the Pacific Division of Fletcher Construction, and two years in American Samoa were followed by a similar period building the Denarau Golf Course in Fiji. He returned to Head Office in Penrose, where he undertook a variety of management roles (construction, operations, and systems) for major transport and infrastructure projects, including a lead role immediate post-quake with the engineering assessment and re-construction programme in Christchurch. He was highly regarded in Fletchers for his organisation,

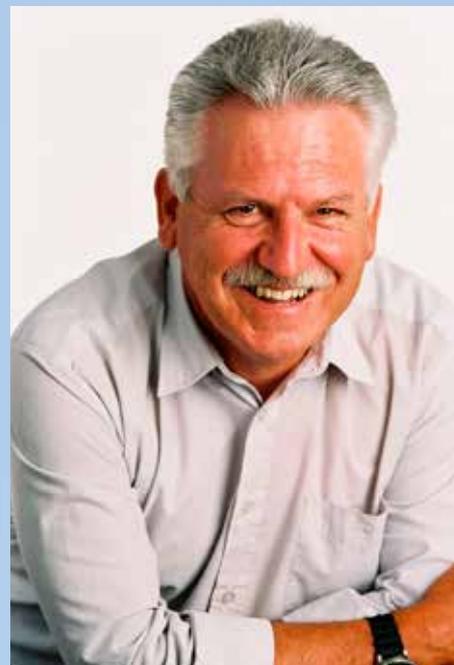
initiative, and ability to communicate effectively within and beyond the company.

These skills were applied by Graham in revitalising the Auckland Branch of the Society (he was Chair for 10 years) and in national leadership (North Island Vice-President for three years and National President in 2010 and 2011). He served as a Trustee for the Antarctic Heritage Trust and maintained a diverse group of Antarctic friends and contacts. Graham’s love of sharing his passion for Antarctica led to the production and dissemination of *Ice Files*, a monthly compilation of Antarctic news and events. With the help of his wife, Jeanette, this email publication achieved a wide and varied distribution, but did lead to some internal debate within the Society regarding potential confusion as to whether it was an “official” Society publication. Graham’s response was to add a disclaimer and keep on publishing.

Graham was a dedicated and loyal family man. Tragically his son Marty predeceased him. He is survived by Jeanette, his daughter Traci, and four grandchildren.

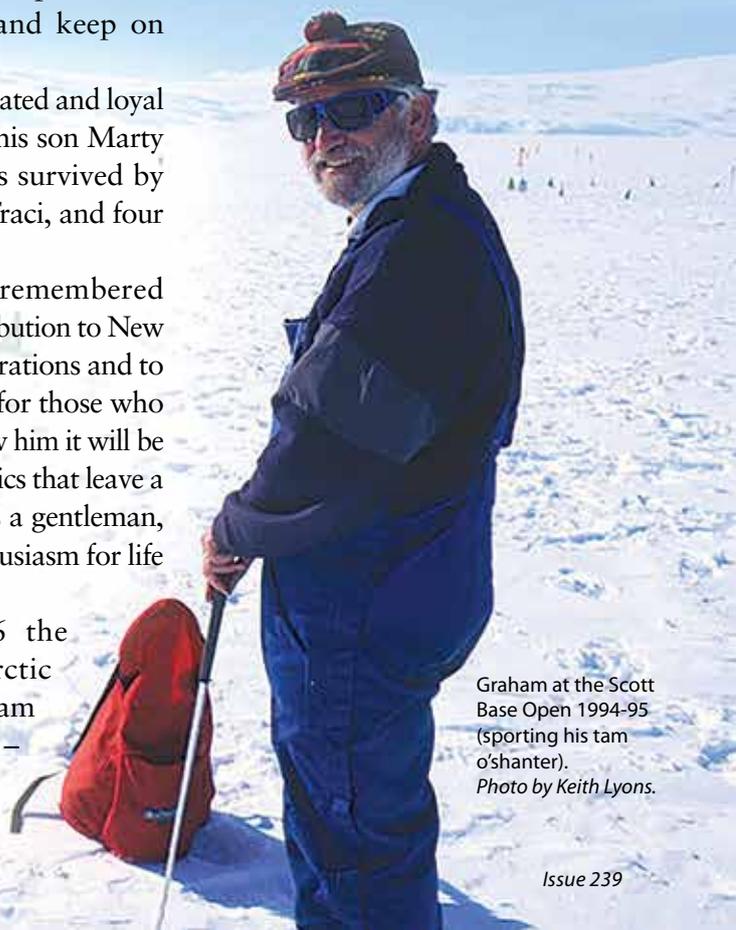
Graham will be remembered for his service and contribution to New Zealand’s Antarctic operations and to that of the Society; but for those who had the privilege to know him it will be the personal characteristics that leave a lasting memory: he was a gentleman, with an energy and enthusiasm for life and living it to the full.

In October 2016 the New Zealand Antarctic Society awarded Graham its highest recognition – Life Membership. ❄️



Graham White  
Photo courtesy of Jeanette White.

**Graham Ernest White: Born 20 November 1945, Christchurch; died 27 November 2016, Auckland.**



Graham at the Scott Base Open 1994-95 (sporting his tam o’shanter).  
Photo by Keith Lyons.



[www.antarctic.org.nz](http://www.antarctic.org.nz)

# New Zealand Antarctic Society Membership

The New Zealand Antarctic Society Inc was formed in 1933. It comprises New Zealanders and overseas friends, many of whom have been to the Antarctic and all of whom are interested in some aspect of Antarctic exploration, history, science, wildlife, or adventure.

A membership to the New Zealand Antarctic Society entitles members to:

- *Antarctic*, the quarterly publication of the Society. *Antarctic* is unique in Antarctic literature as it is the only periodical which provides regular and up to date news of the activities of all nations at work in the Antarctic, Southern Ocean, and Subantarctic Islands. It has worldwide circulation.
- Attend meetings, and educational and fun events that are held by the Auckland, Wellington and Canterbury branches of the Society.

The Editor of *Antarctic* welcomes articles from any person on any subject related to the Antarctic, the Southern Ocean, or Subantarctic regions. In particular, articles recounting personal experiences of your time in the Antarctic are welcomed. Articles may be submitted at any time to the Editor at [editor@antarctic.org.nz](mailto:editor@antarctic.org.nz). The Editor reserves the right to decline to publish an article for any reason whatsoever. Note that all articles will be subject to editorial review before publishing. Please see our advice to contributors and guidelines for authors at [www.antarctic.org.nz/pages/journal.html](http://www.antarctic.org.nz/pages/journal.html), or contact the Editor.

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*Antarctic* magazine correspondence, advertising enquiries, and article submissions should be sent to [editor@antarctic.org.nz](mailto:editor@antarctic.org.nz), or to:

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# "The Discovery"

## British Antarctic Expedition, 1902-4

### Commander Scott, R. N.

Amid th' eternal ice, where never man  
Had sailed before; where the primeval calm  
Of Nature's sternest aspect reigned supreme,  
Ere this, unchallenged and immutable;  
And mighty icebergs, like great ships of war,  
Guarded that desolate coast from human ken;  
There, furthest south, the gallant little ship,  
And her brave crew (than which did never sail  
A better out of England) held their way,  
Buoyant and undaunted; threading their course,  
'Mid hourly dangers in that unknown sea;  
Creeping 'neath towering walls of glittering ice,  
Hundreds of miles along—a vast defiance  
Of man's poor, puny strife 'gainst Nature's bar;  
Gazing with wond'ring eyes, on that strange sight,  
In that vast realm of frost, the fiery Mount  
Of Erebus; as if some dread Ice King  
Had need of warmth, and lighted that huge pyre,  
To thaw his frozen beard!

Then, finding a snug harbour, wint'ring there,  
Letting the grinding ice inlock them fast;  
And then, for two long, eager, toilful years,  
Working and striving, all with one accord to glean  
Fresh truths and glimpses of that unknown land;  
Climbing the slipp'ry heights, and viewing caves,  
Of such weird beauty, that they seemed designed  
By some great architect, of wondrous skill;  
Meeting with sudden perils, hairbreadth 'scapes  
From dreadful death; while, when the wintry sun  
Withdrew his feeble rays, till one dark night  
O'ershadowed all for months; the gallant chief,  
With cheery words and never-failing zeal,  
Encouraged all, and suffered none to droop.  
Brave-hearted captain of a gallant band:  
Stalwart and true, type of our Navy's best;  
Fearlessly leading, where'er duty called,  
Finding true glory there! And that staunch crew,  
Stout-hearted sea-dogs of old Viking breed;  
Still may Old England, as in days of yore,  
Uphold her own, in face of any foe,  
With seamen such as these.

*By J. W. Stones. (From The Heroes of the Antarctic)*



Ship in a bottle: R. R. S. Discovery 1901  
Captain Scott. *Glass in glass*, Artist Unknown.  
Chaplow collection.