

Minutes of 55th Annual Fellows' Forum of Royal Society Te Apārangi

The meeting was held on Thursday, 29 April 2021 at Royal Society Te Apārangi.

Present: Richard Bedford, Richard Blaikie, Penelope Jane Brothers, Deidre Brown, Rowland Burdon, John Caradus, Geoff Chase, Andrew Cleland, Brent Clothier, Mick Clout, Tony Conner, Fred Davey, Charles Eason, Susy Frankel, Susan E Gardiner, Neil John Gemmell, Gail Gillon, Jarrod Haar, Jane Harding, Garth Harmsworth, John Harper, Rawinia Higgins, Andrew Graham Hill, Janet Holmes, Peter Hunter, Robert Jahnke, Robin A. Kearns, Wendy Larner, Charlotte Macdonald (Chair of the Academy Executive Committee), Angus Macfarlane, Gaven Martin, Rangi Matamua, Stephen May, Robert McLachlan, Janet McLean, Helen Moewaka Barnes, David Norton, Julian Paton, Steven Ratuva, Poia Rewi, Damon Salesa, Caroline Saunders, David Scheil, Barry Scott, Philip Seddon, Cather Simpson, Hingangaroa Smith, Michelle Thompson-Fawcett, Graham Weir, David Williams, Denise Wilson, Zhi-Qiang ZHANG

In attendance: Mr James Henry – Chief Operating Officer, Dame Cindy Kiro - Chief Executive, and Marc Rands Academy Executive Office

1. Welcome

Professor Macfarlane opened the meeting with a karakia, and Professor Macdonald welcomed Fellows to the Forum.

2. Valedictories

Dr Conner announced the deaths since the last Annual Forum of the following Fellows and Honorary Fellows:

- **Dr Roger Cooper FRSNZ** (GNS Science) 1939-2020. Dr Cooper was one of New Zealand's pre-eminent palaeontologist, instrumental in using new quantitative approaches to refine the geological time scale itself.
- **Professor Jim Flynn FRSNZ** (University of Otago) 1934-2020. Professor Flynn was renowned for his intelligent approach to research and teaching, and his internationally recognised work on race and IQ.
- **Sir Vaughan Jones HonFRSNZ** (University of California, Berkeley) 1952-2020. Sir Vaughan was best known for the discovery of an unexpected link between the mathematical study of knots and statistical mechanics.
- **Professor Leslie Kay FRSNZ** (University of Canterbury) 1922-2020. Professor Kay's work on 'Seeing with Sound' helped blind persons, robots, and side scan sonar for small fishing vessels.
- **Professor Reinhard Klette FRSNZ** (Auckland University of Technology) 1950-2020. Professor Klette was one of the most recognised and published scientists world-wide in the fields of computer vision and digital geometry.
- **Professor Weston Sandle FRSNZ** (University of Otago) 1922-2020. Professor Sandle was a pioneer in New Zealand in laser physics and laser spectroscopy.
- **Professor David Thorns FRSNZ** (University of Canterbury) 1943-2020. Professor Thorns was an urban sociologist with interests in housing, innovation, urban planning, economic inequality and globalisation.

Obituaries have been, or will be lodged on the Royal Society website as they are provided.

There was a one-minute silence in honour of the deceased persons.

3. Report of Academy and remarks from Chair of Academy, Professor Charlotte Macdonald FRSNZ

Tēnā koutou katoa. Welcome to this part of our day, our hui of celebration for Ngā Ahurei, the Academy of Te Apārangi Royal Society of New Zealand. Just over a year ago we were gathered in this room to wish our long serving former executive officer, Gill Sutherland, best wishes on her retirement. She was about to set out on a long overseas holiday. Her plans, like all our plans, for 2020 got scotched and instead what we had was a year in which expertise, evidence-based research, understandings of the science of disease and of human responses to disease became utterly central. In few other parts of the world was that response as successful as it was – and continues to be – in Aotearoa.

So, it is right that we note that success, and the place that knowledge has as the very foundation of the life and health of a society. The Academy's work continued, under the changed conditions that covid imposed and I would like to pay tribute to my predecessor as Convenor, Professor Richard Blaikie, who completed his term at the end of June 2020. Richard did immense work for the Academy over his 3 years, and through the terms of two Presidents. Richard kept the Academy on track through the rejigged schedule and we were able to hold the Honours events in November, across 3 venues, in Wellington, Christchurch and Auckland, in a revised format which Tarah Nikora curated with her uniquely creative panache. The events at which the Society's awards and medals were presented to leading researchers were occasions of great celebration, discovery and mana (dignity).

A particular highlight/feature of the Awards round in 2020 was the expanded range of recipients – we saw skirts and te reo alongside the suits and cufflinks – signalling the richness and great potential of our research communities. Also a feature in 2020 was the opening of the pinnacle award of the Society, the Rutherford Medal, to Humanities scholars. And the award in 2020 to Distinguished Professor Brian Boyd, the internationally eminent expert on Vladimir Nabokov and on the evolutionary function of storytelling.

In the Fellowship round, delayed by COVID, but proceeding through the work of domain panels and then in the final selection in February 2021, we saw the results we have been celebrating today. 25 new fellows and two honorary fellows - a group of outstanding researchers whose work, and whose stature in their very broad ranging fields, we can feel hugely proud of. And we do!

This year's round also marked a culmination of work to bring the Academy out from its Enlightenment-era limitations which exalted knowledge but saw it only in certain candlelit trajectories, into the full sun of a south Pacific radiance. We see here today the depth and beauty of a fuller vision of knowledge. But such change does not just happen. I will call on my own subject, my own expertise, as a historian here. Change never 'just happens', it is always the result of factors and people working together in ways that chafe and urge, that push and argue, that come together and pull apart.

What we have seen is the work of a number of hands and voices bringing this change to Te Apārangi Royal Society – and here I would like to pay tribute to Presidents and former Councillors of the Society, particularly Professor Richard Bedford and Professor Wendy Lerner; to councillors Dr Moana Theodore and Associate Professor Melinda Webber; to Professor Angus MacFarlane who has contributed huge expertise, wisdom and patience, and to Professor Jacinta Ruru, Professor Linda Waimarie Nikora, and Professor Brendan Hokowhitu who have done a great deal of work.

That work is not at an end, 2020-21 marks a step along the way. There is much yet to be done – embedding some of the change we see before us. We – as the AEC, and Academy (if I can speak for you) – look forward to working together, and with our new Chief Executive, Cindy Kiro, on progressing further along this path.

Fellows of the Academy have also been busy in 2020-21, amidst covid and all, on a number of expert advice projects. These include an expert commentary on the economic impacts of COVID by Alan Bollard; publications

from the Fair Futures panel; newly convened panels on Mathematics and Technology education, along with the NZ Histories Curriculum panel which began work just before the lockdown in March and will report next week.

Individual Fellows continue to give advice from their areas of expertise. Thanks – to Fellows who have served on Medals, Awards and Fellowship panels – for work, time and judgement; to those who have worked on Expert Advice Panels; to nominators, referees, and to members of Academy Executive Committee.

To the staff of Te Apārangi who have supported the work of the Academy – we note especially former chief executive Andrew Cleland (present today), James Henry (Chief Operating Officer), Kahu Hotere (Director, Maori, in working on kaupapa of Ngā Ahurei), Tarah Nikora (Communications and Events), and in the hot seat – Marc Rands, Academy Executive Officer (who has taken on the role in a year which has presented more than its usual challenges). Ngā mihi nui ki a koutou.

Finally, to reflect on what has been a momentous year, inside and outside Te Apārangi and Ngā Ahurei, I want to draw on three scholars who all have things to say about what it is that makes knowledge sparkle, and why we might spend out precious time and effort with it.

The first is Nālani Wilson-Hokowhitu, a young scholar at the University of Waikato, who I had the pleasure of hearing speak yesterday on a research network I co-convene. Nālani was talking about her current research on Pacific navigation – with a particular focus on Hawai'i, and indigenous knowledge/ways of knowing this history. One of the figures she mentioned was Hina, the woman who sailed to the moon. We know the night sky is vital to navigation across the sea but here, in this account/world view, we were taken above the surface of the earth. It feels fitting today that we might also hover out in the night sky too for a moment – to look down on our fragile, beautiful planet from the sky lit up by the pink moon, the super moon, that is in the sky right now. And from there see our part of the planet – the big blue watery wonder of islands that is the Pacific in which Aotearoa sits as one of a string of islands. And a moon in an autumn sky shining on the harvest, the harvest of knowledge represented in the room today, and which we have been feasting on all day today.

The second is Dr Dan Hikuroa, a geologist, of Ngāti Maniapoto, Waikato-Tainui (and who provided his time for the Fellowship round in 2020-21). Dan is one of 24 researchers who features in the magnificent book published in March *Nga Kete Mātauranga* edited by Professor Jacinta Ruru and Professor Linda Waimarie Nikora. Towards the beginning of his chapter Dan writes: *I am often asked to describe what I do from a disciplinary basis, but because of what I do, and the way I do it, I find it difficult to accurately express it in those terms. If pressed I offer Earth systems or environmental humanities (depending on the audience), a transdisciplinary, systems-based approach focused upon sustainability as an outcome, but I prefer to describe myself as a servant of the people, working with and within Māori communities to realise their dreams and solve their challenges.*' (p.140)

The third person is the late, and still much mourned, Paul Callaghan whose vital presence we miss greatly. But whose portrait stands handsomely on our walls here in this whare – as a former President of Te Apārangi Royal Society. Paul was someone who cared deeply, and worked ferociously, at being an extremely good physicist. He also cared deeply and spoke courageously about the society he lived in – what it could be, what it needed to be. And in his posthumous book, *Luminous Moments*, he talks wonderfully about the magical childhood he had in Whanganui where he discovered the properties of magnetism, experienced the thrills of gravity (and then its equations in the classroom) ... and how this led to a career at the very top of international research, pursued in and from Aotearoa. Here is Paul on 'The Beauty of Magnetic Resonance': *I have had a wonderful life in magnetic resonance, learning so much from my students and collaborators. I have always enjoyed dreaming up new ways of extracting information about molecules by manipulation of nuclear spins. And my particular interest in doing this is to gain insight regarding how molecules organise, align and move about. Such insight is of some importance in helping physicists understand soft materials, self-assembly pathways to nanotechnologies, and the behavior of complex fluids and porous media. Of course, such understandings can assist a whole array of applications, from food science, to biotechnology, to biomedicine. That's a motivational factor, but for me it's*

not the main one. It's the beauty of magnetic resonance that holds my interest, as well as its essential veracity.
(Ch.2 The Beauty of Magnetic Resonance)

No reira, tena koutou, tena koutou, tena tatou katoa. Thank you for listening.

4. Report by the Chief Executive, Professor Dame Cindy Kiro DNZM

Dame Cindy began by welcoming the new Fellows to the Academy and that she was glad and proud the Society was coming to grips with other ways of knowing. New Fellows strengthened the body of the society and added new dimensions to it.

The Academy was an essential part of the Society, representing our puna, or reservoir, of expertise and knowledge. This fed into the other work of the Society:

- The Marsden Fund, and its council, was also the largest funder of base science in the country, and hugely critical for basic sciences, humanities and mātauranga Māori.
- the communications team, working with kura around science and the humanities, to connect the Society with these communities.
- the Science media centre, involved with the COVID response, so the media were well informed.
- Our expert advice to Government and the public.

Dame Cindy noted that the organisation was complex, but could not exist without the Fellows puna and convening experience, and she hoped they wouldn't mind being tapped on the shoulder to contribute.

The Society had ambitious plans, with its Council going through a strategic planning process and extensive consultation, to reset what we do. What is the point of having expertise if we do not contribute to the challenges we face - like climate change, health equity and having a fair and just society? We had to be prepared to step up in a more proactive way that used our wealth of expertise to inform these challenges.

We also had a unique role. On her first day as Chief Executive, Cindy was approached by the Royal Society of Canada to run a seminar on incorporating indigenous knowledge, as New Zealand was the only country in the World that they could think would be able to do it. This mix of indigenous and western sciences was our unique opportunity to give great hope for others, to learn from the sciences, humanities, and mātauranga, and take them into our practice. The value of research, clear communication, leadership, and being in it together, was clear over COVID, and we want to do the same for incorporating indigenous knowledge to make sense of the world we live in.

Finally, Dame Cindy acknowledged the legacy the former CEO, Dr Andrew Cleland, had left with the Society's staff, building, and books in excellent order.

5. Report by the President, Professor Wendy Larner FRSNZ

Professor Larner amplified the comments of praise about the way New Zealand's research community responded over the last year of COVID. She acknowledged the commitment of those who had re-prioritised their research goals to address the outbreak, those who were the public faces of science communication, and all those working behind the scenes in a very challenging situation.

She reminded the Forum that more generally it hadn't been an easy year for researchers in publicly funded organisations. Covid had been a toll on organisational budgets and challenged the international mobility that many researchers had taken for granted.

While closed borders had done wonders for New Zealand's carbon footprint, there are challenges being remote from centres of expertise. It is now harder to access the international labour market, and we are all becoming accustomed to having Zoom conferences with international colleagues at all hours of the day and night.

Early Career Researchers have had a particularly difficult year. They have suffered from budget cuts and closed borders, and experienced a year without being able to build crucial international networks. The New Zealand labour market has become more competitive. The Society's ECR forum has raised these issues, and they will be further discussed at the forthcoming ECR wananga.

During 2020 Maori and Pacific colleagues have raised their concerns about their lived experiences of institutional racism, and while there is change in the air, there is still much mahi to do in this regard.

Professor Larner noted that this was her last time to address the Forum as President. She was enormously proud of the work of Te Apārangi. Her three priorities had been to enhance diversity in all its forms, strengthen relationships with Te Ao Māori, and better support Early Career Researchers. All three priorities have been progressed over the last three years, but there was much more to do.

She concluded by acknowledging the support of the Council, Fellows, Companions, Members, Constituent Organisations and Branches. She also commended the efforts of Te Apārangi staff, and the efforts of both Andrew Cleland and Cindy Kiro, as the former and current CEOs.

6. General discussion

Key points from the discussion included:

- The value in circulating the minutes and a discussion topic to stimulate discussion at the Fellow's Forums
- Facing the COVID pandemic, there would be ongoing need to bring the full force of knowledge to address the coming vaccination programme, and vaccine hesitancy.
- Future Fellows forums could invite Branches to showcase their activity to encourage more Fellows to participate locally.
- That the research sector was 'shovel ready' if Government wanted to stimulate activity and employment, with many capable people looking for opportunities.

7. Vote of Thanks

Professor Macfarlane and Meihana Durie closed the meeting, giving a karakia and thanking the Chair of the Academy, Chief Executive and President for weaving their stories like a braided river.