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Neil Cherry, scientist, teacher, politician, peace worker

Part 3

Widening horizons

Dorothy - 21/05/03

Career moves begin

Move to McGill University, Montreal

Neil chose an academic job at McGill University which meant that they lived in Montreal for two years which Gae calls 'two winters'. The cold of winter dominated their life there as they had over 150 inches of snow in each of those winters.

Summer in Alberta

They had wonderful times in Alberta in the summer because Neil was supervising the graduate students there while they researched thunderstorms and hail suppression from cloud seeding. This was very complex as there were so many factors which had to be got right to make it work. When you found rain in an area of hail with silver in the rain, but no silver in the hail around it, then they knew that the silver iodide seeding had turned hail into rain.

Contrast in research methods

The Canadian approach to research was to find a way to do something and then show clearly that it had been done. Four out of eighty eight tests worked right. The Americans used a statistical technique of choosing whether or not statistically to seed a cloud to see over a ten year period whether there was any difference in the hail. Canadians and Kiwis use a much more practical approach than that, finding out how it works and then tracking it through to show that it has worked.

Just after the successful testing the programme was cut.



Neil, Jo and Gae

They spent the summer in Red Deer, Alberta, which was good for Gae and Jo - a much better environment than downtown Montreal. They explored British Columbia and Alberta. To get back to Montreal from Alberta with a restless baby who refused to sleep took a week to ten days by driving.

Neil's own research was on thunderstorms which involved developing computer models for forecasting, thermodynamics and cloud physics - the basic physics of thunderstorms.

Neil starts research into air pollution

He was also involved in the study of air pollution because Montreal and the Arctic had air pollution problems.

Back to New Zealand

The pressure on Gae and Jo in an apartment was tremendous, so for the health of the family they decided to return to New Zealand.

Neil got a post-doctoral fellowship in physics in Auckland.

In that year Karla was born.

Balloons again

Neil was working on theoretical material on storms, and did some work on air pollution by putting a balloon up and measuring the temperature potential over the University - measuring the ability of the air to disperse or retain pollution. This caused great interest. Putting up a large orange balloon over the physics department brought in the TV cameras. Neil's interaction with the media began.



Karla aged two years

First television appearance

In 1972 Neil was on the television National News talking about the air pollution potential of the air over Auckland. There was a lot of concern about traffic pollution at that time.

He tells about the sequel to this programme.

"I had a call from the Ministry of Health in Wellington saying, 'What are you talking about Auckland air pollution on the TV for? There isn't any.'

"I replied, 'What do you mean by *There isn't any*'?. I was talking about air pollution **potential**, not actual air pollution.'

"But you give the impression that there is air pollution in Auckland.'

"Well, I'm looking out my office window at the moment at a brown haze which in Los Angeles or Montreal or Tokyo would be called air pollution.'

"But Auckland is an isthmus and so it doesn't have any way of retaining the air pollution. It just blows away straightaway.'

"I'm near Symonds Street which is busy with cars. The research in North America talks about concerns about ozone. Have you measured the ozone in Auckland?'

"No, but we're going to.'

"Would you let me know the results when you do?'

"They came back and said, 'There is ozone and it does go quite high, over the standards in some conditions.'"

Research showed that the prevailing westerly would blow the pollution out from the city to the Hauraki Gulf and the sea breeze would bring it back again, so for one to three days it would build up until a sou'wester blew it away again.

Pollution an issue again

This was not Neil's first spirited exchange on the subject of pollution. He recalled a seminar in a basement lecture theatre at McGill where the topic for discussion was the air pollution potential of Arctic settlements - the height of the mixing and the speed at which it moves.

About seventy per cent of the people in the room were smoking and Neil said to the chairman, "Sir, what is the air pollution potential of this room?"

He replied, with a cigarette in his left hand, "What are you referring to, Professor Cherry?"

Neil replied, "Yes, the air pollution potential is far greater in this room. What is the concentration of particulates from smoking in this room?"

One of the mathematicians very quickly worked out that it was ten or twenty times higher than that over an Arctic settlement, because there was a fixed ceiling and slow air movement. A discussion started about smoking and pollution and some people put out their cigarettes.

Return to Christchurch to lecturing staff at Lincoln College

Neil's return to Auckland as a post-doctoral fellow was a step down in seniority, but shortly afterwards, 1 April 1974, he was appointed to a position as a lecturer on Agricultural Meteorology at Lincoln College, a college of the University of Canterbury, and the family returned to Christchurch. Earlier Lincoln was the School of Agriculture of Canterbury College of the University of New Zealand. Later it became Lincoln University.

Back in Christchurch

Community and church work

Involvement is the best word to describe Gae and Neil's life in the community.

Back in Christchurch Neil and Gae and the girls again became deeply involved in the work of Oxford Terrace Baptist Church.

Neil became a Deacon and then Church Secretary. He was elected to the Baptist Union Council, the national governing body of the church, and to the Theological College Board. This meant that he was supervising the ministerial trainees who were in Christchurch. Because of the Rev Angus MacLeod's interest in the National Council of Churches and Christian World Service Neil became involved with those organisations. He chaired the Peace Cluster, a sub-group of CWS (Christian World Service).

World Council of Churches conference - Faith, Science and the Future

The World Council of Churches (WCC) at that time was looking at the topic of "Faith, Science and the Future". In 1979 there was a big WCC conference at MIT in Boston and as a scientist and one of the church leaders Neil was asked to be one of the four New Zealand representatives there.

"That was a fascinating experience," Neil says. "That is when I learnt that one of the biggest problems for the environment was the loss of topsoil from a paper by Herman Daly, a global economist with the World Bank. He pointed out that we are losing between 8 and 10% of the world's topsoil per decade. He said, 'A lot of people at this conference are interested in wind energy and solar energy, but the major resource we need is soil to grow food so that the rain can fall on it and the sun can shine on it and plants can grow in it. Look at all those deltas. All round the world, rivers are taking the soil from well inland and sending it down the rivers to form Deltas like the Nile Delta and the Amazon Delta. We must stop the deforestation and keep our valuable soil resource because it takes thousands of years to form it and only years to lose it.'"

It was in the 1970s that scientists learnt about the lack of sustainability of soil and the pollution of water resources. Another theme was our addiction to technology. For a young Kiwi scientist from New Zealand hearing world scientific leaders speak of these issues in the context of "Faith, Science and the Future" was an amazing experience.

"At that time I was responsible for the Wind Energy Survey of New Zealand, so when Herman talked of people's interest in wind energy I felt that he was talking to me," Neil said.

"The chance to talk with other delegates was very stimulating - people coming from all around the world and ranging from world experts and Archbishops to young scientists. Women were involved in the conference and there were sessions on feminist theology with which Gae was very involved in New Zealand".

On his return Neil was asked to give reports to the Baptist Assembly and the Presbyterian Assembly. The Presbyterians were meeting in Dunedin and reacted very positively as the same issues were being discussed at their meetings. The Baptists at that time had a narrower view of their role and were more concerned with local and evangelical issues than with the environment and the impact of society on the world. They were more interested in the faith than in science and the future, whereas the Presbyterians took a more integrated approach.

St Ninian's, the Presbyterian church in Riccarton, Christchurch, asked Neil to give a presentation, and two years later the family began attending services regularly as Jo and Karla wanted to join the Youth Group.

Gae became involved with Play Centre and moved from there to her work with the [Champion Centre](#).

Anti-nuclear movement and peace movement

During that period the Cherrys were also involved in the anti-nuclear movement and the peace movement, and at times attended worship at the Quaker Church where a number of their friends from the Peace Movement belonged. Neil's views on ordination accorded with the Quaker viewpoint. He does not believe in the ordination of ministers, but that all believers are ministers.

For more information about Neil Cherry's scientific research go to his website www.neilcherry.com.

