

Trust funds strengthen bonds between engineering and architecture

Generous support from the Ada Rutherford Trust and the Warren Trust is helping to support the growth of Architectural Engineering at University of Canterbury | Te Whare Wānanga o Waitaha (UC) and a practice-driven focus on collaborative design. The Canterbury Earthquakes Royal Commission called for greater collaboration and information sharing between architects and engineers in its 2012 report. Since then, UC has been developing a number of initiatives to meet this challenge.

An Architect in Residence within Te Rāngai Pūkaha | College of Engineering was established for the first time in 2014, with support from both the Warren Trust and the Ada Rutherford Trust.

That same year, the Ada Rutherford Trust established a \$2.5 million endowment within Te Tūāpapa Hononga o te Whare Wānanga o Waitaha | UC Foundation for a new Ada Rutherford Professorship in Architectural Engineering within Te Rāngai Pūkaha| College of Engineering.

The generosity of this gift has paved the way, in turn, for a new Master of Architectural Engineering (MArchEng) and a new postgraduate certificate in architectural engineering, launched in mid-2018, which together saw an inaugural intake of 12 students starting their postgraduate studies in the first year. Tailored to the needs of early- to mid-career building design professionals with either an engineering or an architecture background, the MArchEng is the first such qualification to be offered in Aotearoa New Zealand. It has been designed not only to boost graduates' collaboration skills but also to develop technical competence, in line with the Royal Commission's report.

"We spent many months preparing, developing and consulting with industry over the programme structure and course components," says Professor Larry Bellamy, UC's Ada Rutherford Professor of Architectural Engineering.

"I think Jim Rutherford, who founded the Ada Rutherford Trust in memory of his mother, would have been absolutely thrilled that architecture has started to take a prominent place in the minds of our engineers. I'm quite focused on the postgraduates, but the influence of architecture is also starting to come into our undergraduate programme through the Warren Trust and the Architect in Residence lectures.

"What will happen from all of this is that we will start [to] see engineers with a much greater understanding of architecture, and architects with a much greater understanding of engineering."

Matthew Dudzik, who is the current Architect in Residence within Te Rāngai Pūkaha | College of Engineering, previously worked as a professor at the prestigious Savannah College of Art and Design in Georgia, United States of America. He leads his own private practice in architecture, interiors, landscape architecture and photography that is strongly guided by principles of authenticity and design integrity. As well as being closely involved with the new postgraduate programme in architectural engineering and teaching the Collaborative Design Studio course in the MArchEng, he is helping to support and develop an understanding of architecture at the undergraduate level.

"We are privileged to have someone of Dudzik's calibre working with the College of Engineering to give us that muchneeded architectural presence, knowledge and leadership," says Professor Bellamy.

The first Architect in Residence was Ōtautahi Christchurch architect Tim Nees, who led the introduction of Integrated Design at UC, offered to graduate engineers for the first time

Professor Bellamy describes Jim Rutherford as a visionary, whose passion for architectural engineering was born out of experience. He graduated from Canterbury University College in 1955 with a Bachelor of Engineering degree in Civil Engineering and went on to have a professional and business career spanning more than 60 years in Aotearoa New Zealand, Australia, Singapore, Africa, the United Kingdom and the USA. Throughout his career, he was fascinated by the interrelationship between architecture and engineering. He studied architecture at night school in the 1950s and later at the Architectural Association School of Architecture in London.

Jim Rutherford's vision is shared by Holmes Consulting, which has provided funding for the Holmes Professor of Practice in Structural Design. Professor Didier Pettinga, who was appointed to that role, is currently teaching two core courses in the Structural Engineering stream of the MArchEng.

"This support from industry is invaluable and underlines our commitment to practice-focused training and education for young engineers," says Professor Bellamy.

Rounding out the faculty is Dr Giuseppe Loporcaro, lecturer in Architectural Engineering, who is funded by UC.

Closer integration of architecture and engineering is also a key strand within the Building Innovation Partnership (BIP) programme being run by UC's Quake Centre. Professor Bellamy is BIP's research director. This \$12.5 million industryled research programme, spanning seven years, is funded by industry and the government.

Who was Ada Rutherford?

Ada Rutherford (1901-1998) was an exceptional teacher, who raised her two sons single-handedly after losing her husband to tuberculosis. Thanks to her relentless commitment to her sons' education, both were able to forge successful careers in their chosen fields.

The Ada Rutherford Trust was formed in remembrance of Ada and her loyal dedication to her children and grandchildren. The trust's primary focus is to advance education and research.

In memory of his mother, Jim Rutherford made a \$2.5 million endowment to Te Tūāpapa Hononga o Te Whare Wānanga o Waitaha | UC Foundation. Its purpose was to establish the Ada Rutherford Professorship in Architectural Engineering at UC and to promote awareness, teaching, research and dissemination of the principles and practices of architectural engineering through the University's Te Rāngai Pūkaha | College of Engineering.

The Warren Trust

Established in 2006, over the last decade the Warren Trust has given more than \$1.4 million to promote architectural education among both the architectural profession and the wider public in Aotearoa New Zealand.

About Sir Miles Warren

Born in Ōtautahi Christchurch in 1929, Sir Miles gained work experience in London after completing his architecture degree and was influenced there by the 'New Brutalist' movement.

In 1955 he designed a group of flats in Dorset Street, Ōtautahi Christchurch that shaped the evolution of what became known as the 'Christchurch style'.

A commission for the Christchurch Dental School in 1958 initiated a partnership with Maurice Mahoney that was to be highly successful and influential. Commissions included Christ's College buildings, Christchurch Town Hall, New Zealand Chancery in Washington, Michael Fowler Centre in Wellington and Civic Offices in Rotorua.

In 1974 Sir Miles was awarded a Commander of the Most Excellent Order of the British Empire (CBE) and in 1984 a Knight Commander of the Most Excellent Order of the British Empire (KBE), both for his services to architecture. He was admitted as a Member of the Order of New Zealand in 1995 and, in the same year, retired from Warren and Mahoney.

Sir Miles was awarded an honorary doctorate from the University of Canterbury | Te Whare Wananga o Waitaha in 1992.