The Prof Retires

This year Professor Henry J Cowan celebrates nearly 50 years of editing internationally renowned journal *Architectural Science Review*. In a celebration to mark his retirement from the editorship the Vice-Chancellor will pay tribute to the Professor’s dedication and legacy. This celebration will take place on Monday 11 September 4pm – 6pm, in the Hearth.

Professor Cowan - who shares the auspicious birth date of 1919 with the Faculty of Architecture, also established in 1919 — left England in 1953 to take up a newly created Chair of Architectural Science in the Faculty. He was born in Germany and at 15 years of age came to England as a Jewish refugee with rudimentary English. He achieved first class honours in Engineering at Manchester University and between 1941-45 served in the Pioneer Corp and later the Royal Engineers where he was injured clearing a mine. In 1948 he resumed his academic life with a lectureship in civil engineering at the University of Sheffield.

*ASR* originated more than 50 years ago from a collection of essays gathered from extension courses for practising architects initiated by the Professor. After accepting a chair in Architectural Science in Sydney University’s Faculty of Architecture the Professor initially had little support. The story of founding *ASR* is etched with the Professor’s tenacious battles against obstacles, the courage to break through the then jealously guarded borders of disciplines and professions, the ability to employ brilliant and loyal staff, and turning a difficult situation into an opportunity. Coupled with an enduring passion for the inter-relationship of the history of architecture and technology — he set about enriching the body of knowledge of architects.

Professor Cowan said the idea of a Chair of Architectural Science originated with the Royal Institute of British Architecture in the early years of World War II. “When it became clear that the reason for Britain holding out against Hitler was its superior; radar, spitfire and so forth. Never before or since has science been held in such high esteem in Britain,” he said. “The RIBA set up a science committee which reported that architects risked losing the leadership in the building industry unless they learnt more science. Its solution was to create chairs of architectural science.

“I was a lecturer in reinforced concrete in England before I got the chair, and I acquired an international reputation for research as a result of my PhD project. It included a theory for the torsional resistance of reinforced concrete, but more importantly I managed to measure the strain in the reinforcement with electric resistance strain gauges without cutting a hole in the concrete to expose it.

“The committee for the chair was university-wide and I guess that impressed its scientific members, as did my list of publications. Unlike my predecessors I taught reinforced concrete to architecture students with visual aids rather than mathematics with financial support from the concrete industry who were keen to persuade more architects to use it rather than structural steel,” Professor Cowan said.

Prior to the second world war the height of buildings in Sydney were mainly steel-framed and limited to 150 feet. “The height restriction was removed in 1955 and Sydney and Melbourne thus acquired some tall buildings and these created new technical problems, as did the introduction of light curtain walls,” he said.

The Professor was confident he had much to offer architecture students and positioned his growing department of Architectural Science at the nexus of architecture, science and technology. The Department of Architectural Science taught architects about concrete so that they could design confidently and talk knowledgeably with their engineers about it. Professor Cowan initiated graduate and extension courses for practising architects on building materials and environmental science and knowledge necessary for “buildings to work”. Studies in computer design, sustainable design, passive solar design, acoustics, illumination and thermal properties evolved out of the Department established by the Professor. It was the notes from these popular courses — given by the Professor, other lecturers from chemical and civil engineering and industry experts in aluminium, stainless steel, glass, thermal qualities and acoustics — that drove the need for a publication.

Publisher William Ingleby approached the professor and agreed to publish and distribute a magazine in exchange for the rights to take paid advertising. Professor Cowan started building up what would become
paid subscribers and a subscriber-funded journal by sending complimentary issues to all the major libraries in the world. “After a few years Ingleby sold ASR to a technical magazine publisher, who charged subscribers, but gave me about 200 copies to post at my expense, so that I could keep up the more prestigious overseas recipients.

“Then there was a severe recession which meant the loss of building advertising revenue. I found another publisher in Melbourne, whose most prestigious magazine was one for the hairdressers’ union who was willing to publish at a loss because of the prestige of publishing a professional magazine,” Professor Cowan said. After the publisher had a serious car accident the Professor was offered to take the magazine back at no charge. “I went to see the VC and told him we now had a prestigious refereed journal, and he agreed that the uni would publish it,” Professor Cowan said.

The postgraduate courses he established not only provided impetus for the founding of ASR, but established ground work for the faculty’s research profile — the Faculty now boasts one of the largest proportions of postgraduate students in the University. He pioneered Masters research, PhD research, and later Masters coursework degrees in the Faculty of Architecture.

Associate Professor Peter Smith was Professor Cowan’s first Masters student and in 1963 was the first person in to be awarded with a PhD in Architecture in Australia. He has co-authored eight books with Professor Cowan.

ASR has always emphasised the international nature of its Editorial Board and sought papers from all parts of the world, says Associate Professor Smith. “At the same time, it has maintained a close connection with both Asia and Africa, a legacy of some of our earlier research students, who came from these areas and returned in many cases to become senior researchers and administrators,” he said. “ASR therefore occupies a unique position, enabling discourse between researchers in the diverse range of disciplines that contribute to Architectural Science, and combining contributions from both established and emerging research groups, and at the same time keeps the Faculty at the forefront of scholarship in these areas,” Associate Professor Smith said. “Architectural Science gained a name and an identity due to the name of the chair and Jack’s promotion of teaching and research across the range of individual subjects of building physics, structures and materials etc. The Design Computing area developed thanks to John Gero and his colleagues. He got commonwealth funding for the 'Key Centre for Design Computing' within the department,” Associate Professor Smith said.

On Professor Cowan’s retirement in 1984 Associate Professor Smith succeeded him as Head of the Department of Architectural Science and Professor John Gero secured the Chair of Architectural Science changing its name to Chair of Design Science. The Faculty’s Professor of Environmental Behaviour Studies Dr. Gary Moore having recently retired as Dean of the Faculty of Architecture after two terms of service succeeds Professor Cowan as editor of ASR. With Dr Moore’s assiduity and impressive research record ASR is set to flourish under his helm.