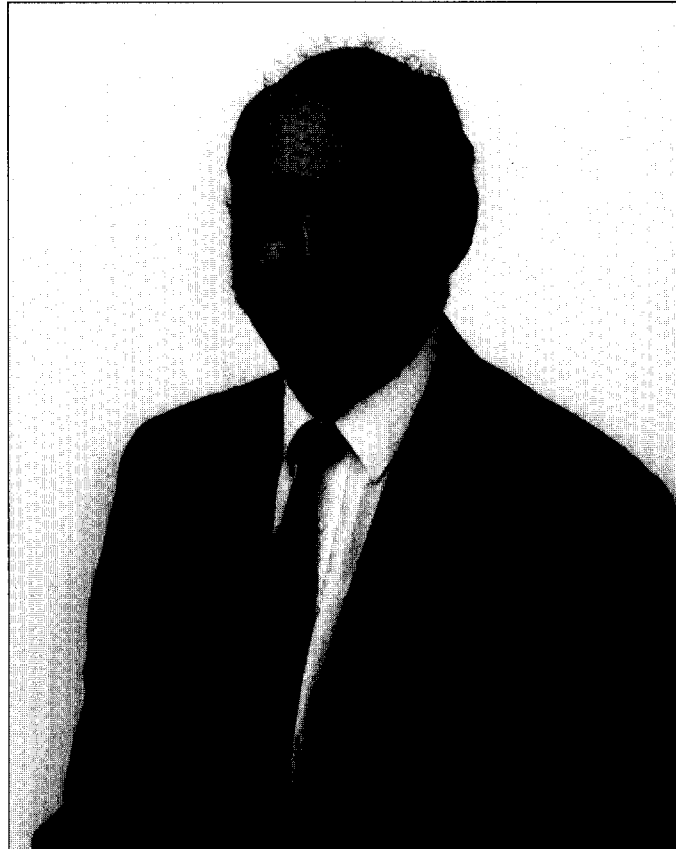


Dedication

Professor J.G. Cabrera (1933–1999)



Professor Joe G. Cabrera had a long and distinguished career. He started his professional life in 1957 designing concrete bridges and concrete pavements for Thompson Cornwall Inc. (USA and Bolivia). In 1959 he moved to the Bolivian Development Corporation where, amongst other things, he was responsible for the construction of facilities for an irrigation project including a pumping station (170,000 m³ of concrete), of 25 km of lined canals, and of inverted siphons (2500 m of concrete pre-fabricated tubular sections). In 1963 he was appointed Head of Construction overseeing a budget of \$4,000,000 per year. He was at the same time a consultant to the Interamerican Development Bank. In 1966 Joe moved his family to England, where he studied for a Diploma of Administration in the University of Leeds.

In 1968 he was appointed a Lecturer in the Department of Civil Engineering and he progressed through the academic grades eventually becoming Professor of Civil Engineering Materials in 1992.

Joe's research activities – involving more than 200 publications and the supervision of more than 65 Ph.D. students – were wide-ranging. He undertook extensive research on – amongst other things – red tropical soils for use in road structures, the use of fly ash (his Chair was sponsored by an electricity generating company, National Power plc) and other pozzolans in concrete, and the design and performance of concrete and asphalt. He designed new apparatus for materials testing, including:

- a static creep testing machine to assess the long-term deformation of bituminous mixtures;

- laboratory and field permeameter for the measurement of permeability of bituminous mixtures;
- turning tube viscometer for the measurement of viscosity of cement pastes and mortars;
- gas and water permeameter for the measurement of permeability of concrete and mortars;
- and a computerized system for the measurement of chloride permeability of concrete.

Many of these have been adopted outside pure research; for example the gas/water permeameter was specified for the acceptance and control of the quality of concrete for the construction of the Jubilee Line of the London Underground.

Joe's work has been recognized by numerous international organizations with awards, including:

- the Gold Medal from the International Society for the Environmental and Technical Implications of

Construction with Alternative Materials (ISCOWA) for his extensive contribution to the development of techniques and understanding of the properties of composites made with alternative materials like fly ash, slag and natural pozzolans;

- an award from ACI/CANMET for his 'outstanding contribution in the area of concrete durability';
- and a special Symposium – the 'Joe Cabrera Symposium on Durability of Concrete Materials' – which was held in June 1998 in Bangkok.

In 1992 Joe established CEMU, the Civil Engineering Materials Unit in the School of Civil Engineering in the University of Leeds, which he built up to be an interdisciplinary group of international standing.