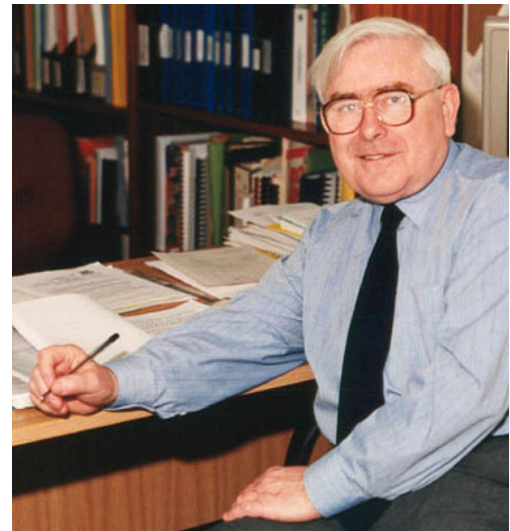


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The Fleming Award

To mark Ken Fleming's contribution to excellence in geotechnical design and construction

Ken Fleming
PhD CEng MICE
1933-2001



Wilfred George Kenneth Fleming

was born on Wednesday 1st February 1933 at the Rectory, Maguiresbridge, Fermanagh, Northern Ireland. Son of a Canon (who died when Ken was 13) his strong Christian faith helped shape and sustain him through a long, fruitful and influential career in Geotechnical (and particularly Foundation) Engineering.

Ken graduated with a first from the Queens University, Belfast in 1955, became an Assistant Lecturer and in 1958 was awarded his PhD for work on "The Bearing Capacity of Pile Groups". In the same year he joined J. Laing and Sons at Borehamwood and in 1960 became associated with McKinney, the Texas piling and drilling company who carried out early foundation work on jobs such as Centre Point, London. In 1968 Cementation Skanska took over McKinney Brathwaite from Laings, bringing together Greenwood, Slivinski and Fleming, a formidable trio who did much to influence and shape early British Geotechnical practice.

Cementation Skanska's regime of that time was relatively benevolent, laissez-faire and as now innovative, with emphasis on good engineering. Ken who did not distinguish between work and play was blessed with a genuine passion for what

was both his livelihood and life-long interest. He settled easily into the Cementation Skanska 'family' quickly becoming an engineering 'guru', designer and problem solver, a role which was effectively unchanged throughout his long career as Chief Engineer. Ken concentrated on technical issues, was well aware of business context, but had his own way of 'dead heading' things which did not attract his interest such as management systems, staff appraisals, monthly reports etc. Others could do such things better and Ken stayed focused on more exciting things.

That is not to say he was not good with people. In his dealings he was invariably generous, helpful, positive, genial and very courteous. He expressed his opinion firmly but not aggressively, his soft Northern Ireland accent, comfortable appearance and welcoming smile set visitors at ease from all over the world. Ken lived his Christian and Engineering precepts and all who encountered him recognised this, such that he became an ambassador for Cementation Skanska, the Piling Industry and for UK Foundation Engineering around the globe.

Ken had the natural curiosity, intellectual capacity and enquiring mind of a true academic. His approach was always soundly based in correct



science, but it was his follow through to details with practical utility which marked his unique value: a genuinely practical academic.

His work on under-reamed piles, and on proper use of bentonite and concrete for diaphragm walls and piles is reflected in working specifications which are industry standards. His method of predicting and analysing pile performance from load tests in the face of inadequate design data provided a practical solution to a recurring difficulty. Ken recognised that whilst it has at its heart an insensitive empiricism, which academic purists find hard to accept, the method worked, and it has been a boon to practitioners in need of immediate answers.

In the field his acute observation of detail often showed a different story from that generally reported, leading usually to correct problem resolution. Several myths prevalent in the industry at large have been dispelled by Ken's observations and analyses. An example from the early days: the ubiquitous underground streams which washed cement from freshly placed concrete piles, thankfully now miraculously disappeared!

Gaining the level of detail through observation could have been Ken's downfall. His need to understand how the McKinney under-reamer worked, had him travelling down within the tool itself to see how the cutter, sprang, shaved and cleaned! Ken stopped telling that tale and others of the same ilk, when he realised it could adversely affect young Engineers to compromise their safety. Indeed of the lasting influences of Ken's work surely the most important is his example and inspiration to numerous young (and not so young) Cementation Skanska Engineers now dispersed throughout the Industry and the world. Many acknowledge a debt.

Ken had a wider influence than his company however, including his participation on a large number of committees which he served, drafting Specifications and Standards, Research projects, reviews of technical papers, etc, to ensure quality and sound practice in construction. This

influence is not confined to the UK but embraces European piling through the EFFC. The numerous technical papers Ken published are available to a much wider world constituency, which is potentially aware of his challenging ideas.

He was principal author of a book "Piling Engineering" which has become a standard reference book (with majority sales in the United States) and has run for several editions. Who knows how extensive and enduring all this will be?

The industry organisations which benefitted from Ken's counsel were principally the Institution of Civil Engineers, the Federation of Piling Specialists (where he was overall Chairman and, perhaps more influentially, for many years Chairman of the Technical Committee), Construction Industry Research and Information Association and British Standards Institution.

The BSI awarded Ken its Distinguished Service award and the British Geotechnical Society honoured him with the prestigious Skempton Medal for life-long contribution to geotechnical engineering.

In 2000 Cementation Skanska instituted "The Fleming Award" given annually for geotechnical engineering excellence for Industry projects at large and featured within the Ground Engineering magazine. An honour not often awarded during one's career, Ken was justifiably proud of this recognition.

Ken was a popular and often asked lecturer at Universities, Trade Bodies and indeed even to individual Companies. His modest, easy style conveying fundamental issues and a great deal of practical good sense and advice. He was for many years a visiting professor at his alma mater the Queens University, Belfast.

In all he did Ken was totally committed, but he also cared. Few people will leave as good a testament to engineering excellence nor as good a role model for professional and human integrity.