

OBITUARY

**Edward E. De Beer
1911–94**

E. E. De Beer was born at Leeuwegem in 1911. After brilliant studies at the State University in Ghent he graduated in 1934 as a civil engineer, and joined the Ministry of Public Works. He was sent by the Ministry to the Technical University at Delft to work under the guidance of Professors Buisman and Broekman. On returning to Ghent in 1938 he set up a soil mechanics laboratory at the Ministry of Public Works. Soon the laboratory became the State Geotechnical Institute and in 1941 De Beer was appointed Director. Apart from a few interruptions, he managed the Institute for 37 years until 1978, and for many years was its General Director. The State Geotechnical Institute carried out countless geotechnical investigations. It did not confine itself to measuring and communicating results: it also interpreted the results and advised its clients on the best way to design. In this way the laboratory rendered the Ministry of Public Works and other government departments, and also companies and individuals, outstanding service. As Director of the Institute and as a private consultant De Beer was responsible for the soil and foundations research of more than a thousand civil engineering projects.

His many writings cover a diverse range of geotechnical problems, including the bearing capacity of soil under shallow foundations, the settlement of shallow foundations, the bearing capacity of driven and bored piles, negative friction on piles, lateral forces on piles, pressure distribution under footing and mat foundations, the stability of cuts in clay and of canal dykes, settlement caused by groundwater lowering, deformation of a clay layer around a cylindrical tank cavity, the behaviour of road foundations, the compressibility of rock, artificially frozen ground and geotechnical mapping.

In all these fields, De Beer developed original opinions and theories. In particular he showed that the shear strength characteristics of ground layers can be deduced from the results of static cone penetration tests and how those results can be used to estimate the bearing capacity and the settlement of shallow foundations as well as of pile foundations. Cone penetration tests are a powerful aid to design when the engineer has to solve foundation and other geotechnical problems. This is largely thanks to the work of De Beer.

In 1946 he was awarded a doctorate in applied science by the Catholic University of Louvain. He



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was a prominent member of the State University of Ghent and taught soil mechanics and rock mechanics there from 1962 until 1981, while also teaching at other Belgian universities. He made many notable contributions to the international conferences on soil mechanics and foundation engineering from the 1948 conference in Rotterdam onwards, and was a founder member of *Géotechnique*. It was at Professor De Beer's instigation that the Permanent Co-ordinating Secretariat was set up in 1973 to co-ordinate the activities of the three sister societies ISRM, IAEG and ISSMFE. He became its Secretary until 1981. In 1989 he was awarded the Kevin Nash Gold Medal by the ISSMFE. This medal is awarded to someone who 'through his engineering practice and education, through his contributions to international goodwill, and through his service to the International Society has made a major contribution to fostering the ideals and goals of ISSMFE throughout the world'. There could hardly be a more apt description for this outstanding man who was one of the founding fathers of modern geotechnical engineering.

Professor De Beer died on 31 March 1994. His many colleagues worldwide will mourn his loss, but will be grateful for the many important contributions he made during his lifetime, which will live on.