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Obituary

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Obituary: Michael John Tomlinson (1916–2011)

Michael John Tomlinson, who died on 8 February 2011 aged 95, was one of the most eminent and respected practitioners in ground engineering throughout the world. His lasting legacy will be his two books *Foundation Design and Construction* and *Pile Design and Construction Practice*, which are in their 7th and 5th editions respectively.

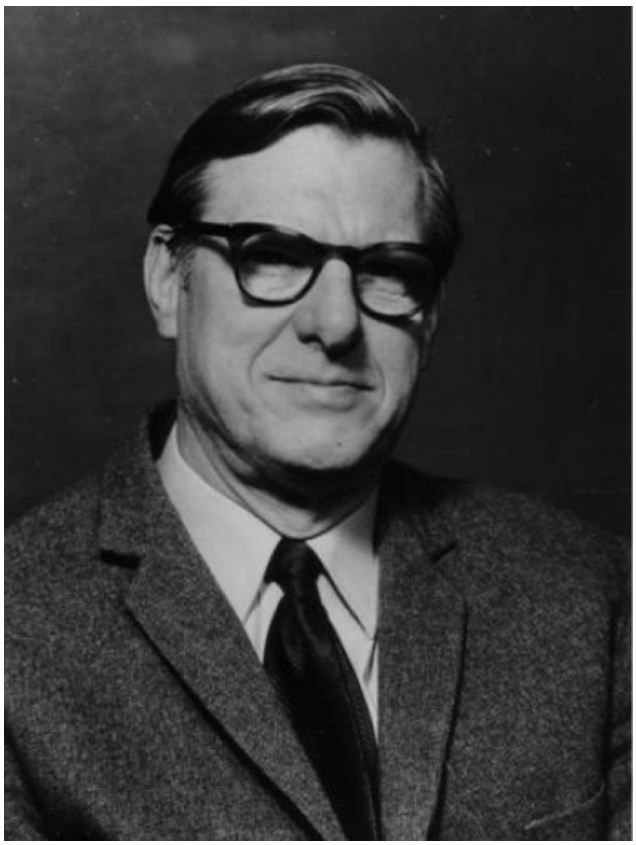
Tommy, as he was affectionately known, was born on 21 January 1916 in Humberside. He was educated at Scunthorpe Grammar School. He climbed the professional ladder the hard way, starting as an articled pupil in the borough engineer's department of Scunthorpe Corporation. He maintained that he drifted into civil engineering by accident but, once articled, his enthusiasm for heavy civil engineering was fired by observing the huge extension to the steel works being undertaken in Scunthorpe by McAlpines.

His enthusiasm took him to the main drainage department of Middlesex County Council in 1938 as an engineering assistant and he studied part time for the professional engineering examinations. In 1941 he began war service with the Air Ministry Directorate General of Works and was commissioned as a flight lieutenant. During the war he served in the UK and in the Near East, designing and supervising the construction of roads and airfields. It was during this period with the Air Ministry that he developed an interest in ground engineering. He had the good fortune to be working with an American from the US Army Corps, who had unlimited access to the American literature. Tommy devoured all the relevant American publications on ground engineering and must have been as familiar with American practice as anyone in the UK at that time. While working in Palestine he encountered many of the special problems associated with arid soils and in particular those associated with swelling clays and carbonate sediments.

In 1946 Tommy returned to the Middlesex County Council as an engineering assistant working in the highways department, but money was short and there was little civil engineering of interest. Stimulated by the lectures given by Professor Skempton on soil mechanics at the Institution of Civil Engineers, in 1947 he joined the Central Laboratory of George Wimpey and Co., working under Dr Murdoch. He remained at Wimpeys until 1976, having become director in 1974. Murdoch's insistence on precision and objective reporting of the facts provided a sound schooling for Tommy and he soon developed a facility for quick and accurate writing – a talent which those who worked with him admired and envied. Another of his talents that was not so well known was that he was totally ambidextrous, both on the drawing board and with his writing. He attributed this to having been born left handed, but being forced to write right handed.

During his 29 years with Wimpeys, Tommy advised on an enormous number of major civil engineering projects world-wide including docks and harbours, oil refineries, offshore and onshore oilfield developments, highways, bridges and power stations. Three particularly challenging projects were the dry dock at Harland and Wolf in Belfast, the Nigg Bay fabricator yard, which involved major dewatering problems, and the Bank of China in Hong Kong, which is founded on deeply weathered granite. It is of interest to note that Tomlinson was responsible for introducing the 'Sparker' echo-sounder technique into UK practice in 1959. He had seen the technique in use in the Arabian Gulf and suggested its use to the Channel Tunnel Study Group. An instrument was brought over from Woods Hole Oceanographic Institute and proved successful.

On retiring from Wimpeys in 1976 Tommy set up in private practice and he and his wife Elizabeth moved to Lincolnshire, where he was able to indulge his interest in landscape gardening. However, life proved too quiet up there and the travel demands of his consulting meant that the Tomlinsons soon moved south again. His consulting schedule would have daunted many engineers half his age. He travelled widely and was engaged in many exciting major projects such as the Jedda-Mecca Expressway and the 83 m long piles for the Jamuna Bridge in Bangladesh.



Michael John Tomlinson, 1916–2011

Throughout his career Tommy served the profession with vigour and enthusiasm. He was elected a fellow of the ICE in 1959 and fellow of the Institution of Structural Engineers in 1972. He sat on numerous BSI committees and was chairman of the code of practice on earthworks. He served on the editorial board of the *Quarterly Journal of Engineering Geology* and on the *Géotechnique* advisory panel. He lectured widely and published numerous papers. In 1958 he received the Coopers Hill Memorial prize from the Institution of Civil Engineers for a paper on airfields on overseas soils; in 1971 he was awarded the BGS prize for a paper on the effects of pile driving on skin friction; and in 1978 he was awarded the Oscar Faber bronze medal for a paper on foundations for low-rise buildings. Very importantly, he was chairman of the British Geotechnical Society (now Association) from 1969 to 1971 and during this time he devoted an enormous amount of time and energy to the society.

Tommy was a quiet, rather formal, but unassuming person who nevertheless held strong convictions. For example, he took part in some of the early Aldermarston marches along with the then director of the Building Research Station, Dr Weston. He was also prepared to question the practical application of some academic research but very willing to take on new ideas when he saw their practical relevance.

Almost all civil engineers in the UK and most in the English-speaking world will know of Michael Tomlinson through his book *Foundation Design and Construction*. It was conceived when he was lecturing at the Northampton Polytechnic (now City University) in the late 1950s, was first published in 1963 and is now, as mentioned earlier, in its 7th edition. It is significant that in the preface to the first edition Tomlinson quotes the three key attributes listed by Peck as necessary to good subsurface engineering: a knowledge of precedents; familiarity with soil mechanics; a working knowledge of geology. His guiding principle was to benefit from past experience. As a consequence he was an avid reader of civil engineering and soil mechanics journals and he would probe relentlessly when following up the experience of others.

In writing his two books he has placed at the disposal of the profession a vast storehouse of practical experience – both his own and that of others. What is more, he continued to keep the books up to date – each new edition having been substantially revised and extended.

As a mark of the esteem, respect and affection in which Tommy was held, in 1988 he was the first recipient of the BGS Skempton medal, which is awarded to a BGS member 'who has made an outstanding contribution to the practice of geotechnical engineering over a substantial period of time'. This was a most fitting award to a gentle and generous engineer who has shared so much of his vast knowledge and experience with his colleagues and the profession.

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