Professor J. Michael Rotter

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See:
http://www.debretts.com/people/biographies/browse/r/20858/%28John%29%20Michael+ROTTER.aspx
http://www.getcited.org/pub/103441750
http://www.worldcat.org/identities/lccn-n00-13645
http://65.54.113.26/Author/18061135/j-michael-rotter
http://orlabs.oclc.org/identities/lccn-n00-13645/
http://asmedl.org/journals/doc/ASMEDL-home/most_downloaded.jsp?KEY=JPVTAS&Year=2011&Month=1&agg=md

Professor of Civil Engineering, FREng, FRSE, FICE, FIStructE, FASCE, FIEAust
School of Engineering and Electronics
The University of Edinburgh

John Michael Rotter was born in Chesterfield, England on 31 October 1948. His family environment naturally conditioned his life. His parents had spent many years in China, Burma, India and Australia before his birth and his sister and brother were born in China and Australia respectively. Throughout his childhood, the house was full of Chinese artefacts, so it is not surprising that he grew up thinking that the whole world was his home. His mother, a biologist, had studied under Lord Ashby and his father, a mechanical engineer working in mining, had studied at the Royal School of Mines. This was a household with a practical scientific view of the world in which everything was there to be explored, understood and used to benefit mankind.
Michael was educated at Monkton Combe School, near Bath, Somerset and at Clare College, Cambridge University where he gained a first in the Mechanical Sciences Tripos in 1970. On graduating, he was awarded a

Commonwealth Scholarship to study at Sydney University. Having developed a passion for structural mechanics, he could not choose between steel and concrete, so fortuitously chose composite steel- concrete buildings as his topic. Nearing completion of the thesis, he was offered a lectureship at Sydney University and so began his academic career in that renowned Department of Civil Engineering. After a total of 18 years in Sydney, he was offered the Chair of Civil Engineering at Edinburgh University in 1988, where he became Head of Department and the only professor. After three years at Edinburgh he was asked to take the new position of Head of the Engineering Planning Unit, in charge of Civil, Chemical and Mechanical Engineering, a role which he undertook for the next 7 years. His dedication in transforming the Department of Civil Engineering into one of the top civil engineering departments in the UK is very much appreciated by his colleagues.

His interest in the development of standards for structural design was instigated by Prof. Nick Trahair at Sydney, and work in this area has probably been the biggest driver in his research career. Coupled with this interest has been the investigation of a large number of failures, each of which presented different conditions leading to new understandings of critical aspects of structural engineering. The outcomes of these investigations fed into both his research and his contributions to the development of standards. His most significant contributions have been a great range of research studies that have transformed the standards for pressures in silos, led to the world's first standard on structural design of metal silos, and produced a transformation of the way in which shell buckling, plasticity and imperfection sensitivity are dealt with whether by hand calculations or in exploiting either simple or advanced computational modelling. He has published over 330 papers and produced more than 60 investigation reports on failures.

In his work on standards, Michael was first a co-author of the 1983 Australian Institute for Steel Construction "Design of Steel Bins for Bulk Solids", then appointed as a corresponding member of the European Convention for Constructional Steelwork TWG 8.4 on shell buckling in 1987 and thirdly co-authored the 1987 Institution of Engineers, Australia "Guidelines for the Assessment of Loads on Bulk Solids Containers". The latter led on to his major contribution to the new Australian Standard AS 3774 "Loads on Bulk Solids Containers" (1990). Following his appointment to Edinburgh, he became chairman of the Eurocode committees charged with developing four new standards: EN 1993-1-6 Strength and Stability of Shell Structures, EN 1993-4-1 Silos, EN 1993-4-2 Tanks, EN 1993-4-3 Pipelines. Many new advances in thinking about these structures were made by this team, which also worked closely with the European Convention for Constructional Steelwork TWG 8.4 group who are responsible for the "European Recommendations on Shell Buckling". He now chairs both the Eurocode committee and the ECCS group, which is about to publish the huge 5th Edition of its Recommendations. In addition to the above standards committees, he is an active member of the American Concrete Institute Committee 313 on concrete silos, the American Society of Mechanical Engineers "Structures for Bulk Solids" committee and the European Cooperation on Space Standardisation committee on the structural design of space vehicles.

Apart from being awarded several fellowships of professional engineering institutions, Michael was elected Fellow of the Royal Academy of Engineering in 2004 and Fellow of the Royal Society of Edinburgh in 2005.

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