



Cambridge Society for the Application of Research

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<http://talks.cam.ac.uk/show/index/5366>

Masonry Vaults;

Why ancient buildings 'aye endure'

Professor Jacques Heyman

Former Head of Engineering at the University of Cambridge

7.30 p.m., Monday 5th November 2007

The Wolfson Lecture Theatre, Churchill College, Storey's Way, Cambridge

Professor Jacques Heyman writes:

"The talk, which is entirely non-mathematical, is concerned with the structural action of high vaults, including the Gothic rib vault; attention is paid to fan vaults, and in particular to the vault of Henry VII Chapel, Westminster."

About the speaker:

Professor Heyman was Head of the Engineering Department of Cambridge University. He is a structural engineer who was one of the pioneers in the development of plastic theory for the design of steel frames; he applied the powerful theorems of that method to masonry structures, and has been concerned with the repair of major cathedrals, churches, and medieval bridges. He served for many years on the Westminster Abbey Architectural Advisory Panel, and on the Cathedrals Fabric Commission for England. His book *The Stone Skeleton* (CUP) describes the engineering behaviour of masonry.

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The Organising Secretary adds.....

Professor Heyman comes highly commended! I have researched the following, to add a little more background to his talk:

“Whereas the early work that Heyman carried out on developing the mathematics of plastic theory is invariably linked with Baker, he made a name for himself by translating the theorems worked out for steel into ones that could be used for stone. As a result, he has become the world’s leading expert in cathedral and church engineering. Having published the results of this theoretical work he was soon approached by an architect with regard to the repair of cracks in a cathedral.

Of particular benefit to the University, in 1971 Jacques Heyman was responsible for the repair and restoration of the great west tower of Ely cathedral. In fact, he cannot enter a cathedral without noticing the cracks first of all. Even now as a consultant, he generally has at least one cathedral and a couple of parish churches on his books.

His books on the subject have now been translated into many languages, and he is often called to lecture in Italy, where he has an association with the University of Florence.”

Best Regards

Richard Freeman, CSAR Organising Secretary

Coffee available, as usual, in the foyer outside the lecture theatre from ~7.00 p.m.

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