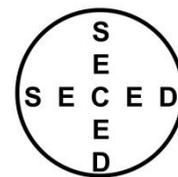




## Recovering the Lost 'Moment': How Timber-laced Masonry may hold the Secret to Stopping Pancake-Collapse of Concrete Moment Frames



Can't make it? Join this event online

Thursday, 2nd May 2019 at 6:30pm  
The Institution of Civil Engineers, Godfrey Mitchell Theatre,  
One Great George Street, London, SW1P 3AA

This meeting is preceded by the EEFIT AGM at 6pm and the SECED AGM at 6:15pm. The lecture will start at 6:30pm.

[http://comms.ice.org.uk/UPVc\\_rOc55LSaMNzURmFBh98mn\\_LpvPm5BLdDPXGoSX/WebView.aspx](http://comms.ice.org.uk/UPVc_rOc55LSaMNzURmFBh98mn_LpvPm5BLdDPXGoSX/WebView.aspx)  
or <https://www.ice.org.uk/events/recovering-the-lost-moment-london>

Randolph Langenbach has become known for his research, writings, and consulting on earthquake risks, and also the resilience, of different types of traditional masonry construction. More recently his work has also focused on the increasing numbers of buildings of reinforced concrete and steel construction that have failed to live up to their promise of earthquake-safe performance, and how what he has observed in the resilience of some examples of traditional construction may provide important answers to this problem. In his talk for SECED, Langenbach will begin with his recent work in Nepal after the 2015 Gorkha earthquake. He will cover both his observations on the performance of historic masonry buildings in Kathmandu, including the 18th, 19th and 20th century wings of the Hanuman Dhoka Palace, and his work in the high mountain countryside distant from roads where he has developed a proposal he named "Gabion Bands" to provide a means for people to rebuild their houses with the only materials readily at hand: rubble stone with mud mortar together with bamboo, recycled timber, and sheet metal roofing. He will then go on to explore the problems of larger more contemporary buildings of moment frame construction with interior and exterior walls that are often of weak masonry. This masonry has often been ignored in their design, except as dead weight. His talk will reach back to the late 19th century in the U.S. with the invention of skeleton frame highrise buildings. He will describe the many decades of efforts to separate the masonry infill walls from the frames, to the more recent recognition, for example with confined masonry, of the need to embrace these walls as a strategic part of the engineering of these buildings without the masonry walls having to be treated and calculated as shear walls. This discussion will include his concept called "Armature Crosswalls."

### Speaker

**Randolph Langenbach's** background is closely tied to Britain, as he was an exchange student at Dulwich College, and then later did a post-graduate diploma course in Building Conservation at IAAS in York. He has two degrees, including a Master of Architecture, from Harvard. He was an assistant professor of architecture at U.C. Berkeley, and then more recently served as a Senior Analyst at FEMA (Federal Emergency Management Agency). In 2003 he was awarded a Rome Prize Fellowship in honor of both his earthquake research and his photography at the American Academy in Rome. His publications and biography can be found at [www.conservationtech.com](http://www.conservationtech.com).

Attendance at this meeting is free. Seats are allocated on a first come, first served basis. This meeting is preceded by the EEFIT AGM at 6pm and the SECED AGM at 6.15pm.

For further information please contact **Shelly-Ann Russell**  
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