



**J.W. JORDAN, BE, FIEAUST, CPENG
BILL JORDAN & ASSOCIATES,
CONSULTING ENGINEERS:**

EXPERIENCE STATEMENT

The following curriculum vitae briefly sets out Bill Jordan's qualifications, affiliations and experience. Further details can be provided if required.

QUALIFICATIONS: Bachelor of Engineering
(University of Sydney) (1969)

Chartered Professional Engineer, Australia

**PROFESSIONAL AFFILIATIONS AND
MEMBERSHIPS**

Fellow, Institution of Engineers Australia;
Member, College of Civil Engineers and College
of Structural Engineers and registered in National
Engineers Register (NER) in the general areas of
practice of Civil, Structural and the specific area
of practice of Heritage and Conservation
Engineering.

Registered Professional Engineer Queensland

Member, Association of Consulting Structural
Engineers, NSW.

Member, College of Investigative and Remedial
Consulting Engineers of Australia

President, Newcastle Division of Institution of
Engineers Australia, 2004

Member, Engineering Heritage Australia board
(formerly National Committee on Engineering
Heritage) of the Institution of Engineers,
Australia, 1991 to 2013 (Chairman, 1997/98) —
Editor, newsletter "Engineering Heritage
Australia"; 1998-2012, Convenor Historic
Engineering Plaquing Program, 2001–2006 and
Heritage Recognition Program 2010–2013

Member, Association for Preservation
Technology International (APTI) and co-
convenor Australia chapter

Member, Building Limes Forum (UK)

Member, reference panel, NSW Heritage Council
Technical Advisory Group

AWARDS

1992 John Monash Medal of Institution of
Engineers, Australia

SUMMARY OF EXPERIENCE

Mr Jordan commenced his professional career with the (then) NSW Department of Main Roads in 1969. In 1981 he joined Hughes Trueman Ludlow Engineers to open their Hunter Valley office and became a Director of that firm in 1986. He has been involved in design and construction of a wide variety of civil and structural projects including roads, bridges, railways, industrial developments, sewerage and drainage and mining infrastructure. He also has a particular interest in engineering heritage and has advised on the conservation and preservation of many buildings and artefacts, particularly following the Newcastle earthquake of 1989.

Special expertise has been developed in historical masonry and mortars (including bridges), induced building vibrations and monitoring, and earthquake damage assessment and repair.

PAPERS

"The Newcastle Earthquake and Heritage Structures" (with E.G. Trueman and J.N. Ludlow), Transactions of Multi-Disciplinary Engineering, The Institution of Engineers, Australia, Vol. GE16 No.1 1992, pp. 53 - 62.

(This paper was awarded the Institution of Engineers 1992 John Monash Medal.)

"Stabilizing Heritage Buildings Founded on Reactive Clays - Dealing with Conflicting Requirements" (with B.J. Collins), Transactions of Multi-Disciplinary Engineering, The Institution of Engineers, Australia, Vol. GE17 No.2 1993, pp. 105-112. (An updated and modified version of this paper was presented at the "Material Evidence" seminar held by the NSW Heritage Office, April 2000 and in 2004 to Heritage South Australia seminar.)

"Claremont: A Case Study of Engineering in Building Conservation", Transactions of Multi-Disciplinary Engineering, The Institution of Engineers, Australia, Vol. GE18 No.2 1994, pp. 13-19.

"Earthquake Damage Repair and Strengthening of Christ Church Cathedral, Newcastle NSW" (with B.J. Collins), The Seventh International Conference on Structural Faults and Repair, Edinburgh, Scotland, July 1997 (Proceedings vol. 3, pp. 351 - 364), reprinted in "Strengthening and Stabilization of Concrete and Masonry Structures", International Concrete Repair Institute, 2003.

A revision of this paper was presented in the Cathedral at the 2009 Australian Earthquake Engineering Society conference.

"Conservation of Red Bridge, Tasmania" (with R. McGee, G. Nichols and P. Selby-Smith), Austroads 4th Bridge Engineering Conference, Adelaide, November 2000 (Proceedings vol. 3, pp. 265 - 279).

"Factors in the selection of mortar for conservation of historic masonry", 6th Australian Masonry Conference, Adelaide, July 2001 (Proceedings pp. 231 – 240).

"Lime mortar and the conservation of historic structures", 12th Australian Engineering Heritage Conference, Toowoomba, 29 September – 1 October 2003; reprinted in Australian Journal of Multi-Disciplinary Engineering, The Institution of Engineers, Australia, Vol. 3 No.1 2004, pp. 35-41.

"The Conservation of Masonry Chimney Stacks" (with P. Spratt), 12th Australian Engineering Heritage Conference, Toowoomba, 29 September – 1 October 2003 ; reprinted in Australian Journal of Multi-Disciplinary Engineering, The Institution of Engineers, Australia, Vol. 3 No.1 2004, pp. 27-33.

"Retrofitting existing masonry buildings to resist explosions" (with S.P. Ward), Australian Journal of Multi-Disciplinary Engineering, Special Edition "Engineering a Secure Australia", Institution of Engineers Australia, 2004, pp. 81 – 87.

"The conservation and strengthening of masonry structures" (with C.L. Brookes), 7th Australian Masonry Conference, Newcastle, July 2004 (Proceedings pp. 83 – 92).

"Stabilizing an 18th Century Building on Reactive Clay Foundations" (with M. Allman), Australasian Structural Engineering Conference, Newcastle, September 2005; reprinted in Australian Journal of Structural Engineering, The Institution of Engineers, Australia, Vol.6 No.3 2006, pp. 199 – 206.

"Maintenance and operation of the 1885, rope-driven Craven Bros gantry crane" (with P. Cockbain), 2nd International & 13th National Engineering Heritage Conference, Sydney, September 2005; reprinted in Australian Journal of Multi-Disciplinary Engineering, The Institution of Engineers, Australia, Vol. 4 No.1 2006, pp. 69 – 75.

"Anchoring Blast Resistant Windows" (with S.P. Ward), Australian Earthquake Engineering Society Annual Conference, Albury, November 2005.

"Promoting Heritage Conservation Practice for Professional Engineers", 14th Australian Engineering Heritage Conference, Perth, 19– 21 November 2007 (invited keynote paper), republished in the Australian Journal of Multidisciplinary Engineering, Vol. 6, No. 1.

"Blast Vibration Effects on Historical Buildings" (with D. Sutcliffe and J. Mullard), Australasian Structural Engineering Conference, Melbourne, June 2008 (revised and published in the Australian Journal of Structural Engineering, Vol. 10 No. 1, 2009)..

"Earthquakes and historical buildings — it isn't all bad news", (invited keynote paper), Australian

Earthquake Engineering Society Annual Conference, Ballarat, November 2008.

"Monitoring blast effects on historical buildings", Australasian Structural Engineering Conference (in association with CECAR5), Sydney, August 2010.

"The Design and Use of Repair Mortars for Historical Masonry in Australia", 2nd Historic Mortars Conference, Prague, September 2010.

"The engineering of Budj Bim and the evolution of a societal structure in Aboriginal Australia", 16th Engineering Heritage Australia Conference, Hobart, November 2011, revised and republished in the Australian Journal of Multidisciplinary Engineering, Vol. 9, No. 1.

"Mine blasting vibration and its effects on buildings and structures – implementing a frequency-based approach", Australian Earthquake Engineering Society Conference, Barossa Valley, November 2011.

"Induced building vibrations — can we calculate responses?", Australian Earthquake Engineering Society Conference, Hobart, November 2013.

"Is Big Necessarily Better? The "Discovery" of Highly Significant Small Bridges" (with R. Melville), 17th Engineering Heritage Australia Conference, Canberra, November 2013.

"Maintenance and operation of the 1885 rope-driven Craven Bros gantry crane", 'Big Stuff 2015', Lewarde, France, September 2015.

'Mediaeval Vaults Show the Way to Conserving a 19th Century Reservoir Roof' (with J. Mullard and C. Allen), 18th Engineering Heritage Australia Conference, Newcastle, December 2015.

WORKSHOPS AND OTHER PRESENTATIONS

Various workshops and seminars on mortar, reactive clay foundations, damage to heritage buildings etc. for:

NSW Heritage Council

Heritage SA

Institution of Engineers Newcastle, Brisbane, Adelaide, Hobart etc.

APTI Australia Chapter (Tasmania, May 2010)

Friends of Manchester Museum of Science & Industry/Newcomen Society Chapter, September 2010

APTI Denver, USA October 2010